THE VETERINARY RECORD

A Weekly Journal for the Profession.

Edited by William Hunting, F.R.C.V.S.

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Eighth International Veterinary Congress.

This, the most important veterinary meeting of the world, is to be held at Budapest in September next, and will extend from the 3rd to the 9th. The Congress will be held in three sections (1) Veterinary Sanitary Police; (2) Biology; (3) Pathology. All the world will be represented, and it is very desirable that British veterinary science should not be behind that of other countries. For many reasons a journey to Budapest will prevent a great number of our members from attending who might have sacrificed a little time and money had the Congress been nearer. Probably only a few individuals will attempt the journey, but the R.C.V.S. and the various Associations might well send delegates.

The subscription is only 17s. and the whole cost of the journey may well be brought within an expenditure of £25. If any single Association finds the payment of a delegate too onerous it might arrange with another to join in defraying expenses. It is no small demand upon a practitioner to ask him to leave his practice for 14 or 21 days, and we fear few will accept the position of delegate even if out-of-pocket expenses are paid. Still some effort should be made to give Britain a respectable place at the Congress.

In Section I. Swine-fever, Tuberculosis, Anthrax will receive special attention, and so also will such questions as International Periodic Veterinary Sanitary Returns, the Establishment of Uniform Principles for judging the reaction of Tuberculin, and the subject of Inoculation for the Prevention and Suppression of Cattle Diseases.

In Section II. Milk, Meat, Feeding and other hygienic subjects will be discussed.

In Section III. Tuberculosis, Glanders, Cancer, and Sero-therapeutics take a prominent place. Other subjects upon which papers have been contributed are Protozoa as causes of Disease and The Toxic Substances produced by Animal Parasites.

This is a mere outline of the programme, and it is attractive enough without the series of excursions and other functions offered by the Hungarian members of the Congress.

Subscriptions may be sent to the Secretary, Royal Hungarian Veterinary College, VII, Rottenbiller-utcza 23, Budapest. The subscription provides for a general report of the proceedings free by post.

Epizootic Lymphangitis.

There is an increase, though a slow increase, in the number of civilian horses affected with this practically incurable disease. It is impossible to account for its spread in this Kingdom except on the hypothesis that some escape of infection takes place from the horses of the Army.

Last year—on July 8th and 28th, the following questions and answers were made in the House of Commons:—

Question.—Mr. Hayes Fisher:—To ask the Secretary of State for War whether he is aware that a disease called epizootic lymphangitis has been introduced into this country from South Africa by Army horses, and that a large number of cases have occurred recently at numerous barracks, and whether, with a view of preventing its introduction into civilian stables, he will withhold the sale of cast horses until the disease has been stamped out, especially as, owing to the incubation period extending to several months, horses may be sold in an occult state of the disease, even though veterinarily examined on the day of sale (8th July, 1904).

Answer—Mr. Secretary Arnold Forster:—It is the case that a disease called epizootic lymphangitis has appeared in this country and it is believed that it was introduced from South Africa.

394 Army horses have been infected with this disease at various stations, of which number 254 have been destroyed, 32 have recovered, and 108 are still under treatment.

Orders have been given that the sale of horses to the public from affected units will be withheld for six months from the date of the last case of that unit. I am informed that this action will effectually prevent the introduction of the disease into civilian stables.

Question.—Mr. Hayes Fisher:—To ask the Secretary of State for War whether seeing that there is no known method of detecting occult cases of epizootic lymphangitis while the animals are alive, he will take steps, wherever an outbreak has occurred to prevent such cases being transferred from one station to another, thereby increasing the number of centres of infection; whether, in view of the fact that no less than 64·40 per cent. of Army horses have had to be slaughtered, while 27·38 per cent. are still under treatment, and only 8·12 per cent. have recovered (and of these apparently recovered cases there is always a liability of the disease recurring, even after a considerable period), he will consider the desirability of slaughtering all clinically infected animals as being the most likely method of stamping out the disease and reducing

the risk of infecting civilian studs; and whether he can state what was the average period of treatment of the 254 slaughtered, the 32 cured, and the 108 uncured cases respectively, and at what stations outbreaks have occurred in the United Kingdom.

Answer.—Mr. Secretary ARNOLD FORSTER:—The replies to the first two parts of the question are in the affirmative. It must, however, be pointed out that the figures 64·40 per cent. refer to the proportion of horses slaughtered to horses infected, and not to Army horses generally.

The average period of treatment of the 254 slaughtered was 12 days; of the 32 cured cannot be stated definitely, but none were considered cured until they had been under observation for six months; and of the 108 uncured cases cannot be stated as they are still under observation.

The list of stations at which outbreaks have occurred, and the statistics for each station are as follows:

Station	No. admitted	Cured	Remaining	Destroy'd
Waterford	6	2	—	4
Kilkenny	4	1	—	3
Aldershot	61	11	—	50
Curragh	6	—	—	6
Brighton	1	—	—	1
Manchester	2	—	—	2
Sheffield	2	—	—	2
Newcastle-on-Tyne	20	4	9	7
Woolwich	231	14	86	131
Bradford	21	—	4	17
Ipswich	4	—	2	2
Colchester	1	—	1	—
Bulford	2	—	1	1
Trowbridge	1	—	—	1
Shorncliffe	2	—	1	1
Newbridge	1	—	—	1
Leeds	1	—	—	1
Dover	1	—	—	1
Clogheen	6	—	—	6
Deepcut	1	—	—	1
Fermoy	1	—	—	1
Limerick	1	—	—	1
Chelsea	3	—	1	2
Birmingham	2	—	—	2
St. John's Wood	1	—	—	1
Bandon	2	—	—	2
Chatham	3	—	3	—
Dorchester	2	—	—	2
Glen Imaal	4	—	—	4
Christchurch	1	—	—	1
	394	32	108	254

On August 11th, Mr. Fisher returned to the subject and the following question and answer appeared:

Question.—Mr. HAYES FISHER:—To ask the Secretary of State for War, what steps he has taken to prevent civilian horses, requisitioned for manœuvres, coming into contact with occult cases of epizootic lymphangitis, as the continued existence is causing anxiety to civilian horse owners; also what steps he has taken to prevent occult cases of the disease being transferred from one station to another, and of coming into contact with horses in other regiments free of disease during manœuvres, and if he has now decided to slaughter all horses still suffering from the disease, especially as such a small percentage of attacked horses recovered while such a large percentage have been slaughtered.

Answer.—As regards the first part of the question no horses liable to affected will be taken on manœuvres; therefore the possibility of conveying the disease to civilian horses is remote, especially as steps will be taken to keep the latter away from contact with military horses.

As regards the second part of the question careful veterinary inspection is made of all horses removing or being received at either station within six months of cases occurring.

As regards the third part of the question the majority of horses suffering from the disease are slaughtered, but it is not considered necessary to destroy cases which show probability of recovery and for which facilities of complete isolation and treatment exist.

This year Mr. Fisher has again drawn attention to the subject, and on April 13th, 1905, the following alarming statement was elicited from the Secretary for War:

Question.—Mr. HAYES FISHER:—To ask the Secretary of State for War what number of the 108 Army horses which were suffering from epizootic lymphangitis in July last have been slaughtered; what number of fresh cases have occurred among army horses in England, Scotland, and Ireland respectively since that date.

Answer.—Of the 108 horses suffering from this disease in July last, 60 have been destroyed since that date, 96 fresh cases have occurred in England, one in Scotland, and five in Ireland.

From this it would appear that the disease shows no decrease and that we have every chance of the spread of a new imported disease among our home stock.

Last July 394 horses had been infected in the army; 254 were killed, 108 remained under treatment and 32 were returned as cured.

Of the 108 remaining diseased 60 have been killed and 96 fresh cases have occurred, so that there are at present 144 horses diseased – save those which have been "cured" or quite recently destroyed.

The Secretary for War says "None were considered cured until they had been under observation six months," and we may presume that until entered as cured all these have remained under isolation. If every case requires six months' isolation and if there is a mortality of 80 per cent. on all affected, is it worth while attempting the cure of any? Would it not be more economical to require compulsory slaughter of every case on diagnosis. The occurrence of an increasing number of odd cases in civil stables demonstrates that some escape of infection is taking place, and should the disease once gain a hold of any large stud we should in time have a horse-plague prevailing which ultimately would be as costly and annoying as glanders.

Surely these facts are sufficient to show the economical necessity of destroying every diseased horse in the army as soon as it is detected. These facts are also evidence that the Order of the Board

of Agriculture which relies upon isolation to control the disease in civil stables is a weak and untrustworthy regulation.

The Government brought the disease here from South Africa and its stamping-out should be paid for out of Imperial funds.

"Careful observation makes a skilful practitioner but his skill dies with him. By recording his observations he adds to the knowledge of his profession, and assists by his facts in building up the solid edifice of Pathological Science."

"PHARYNGEAL ABSCESS."

What are these tumour-like swellings, or rather encapsuled abscesses, filled with thick grumous pus or cheesy-like *debris* which every now and again one meets with inside the throats of dairy cows? A fair sized, firm, almost hard tumour or bulging or swelling very slowly indeed and gradually softening to an abscess, occasionally at the side, but much more frequently right in the centre of the upper part of the pharynx, just above and behind the velum pendulum palati, extending along the roof in the direction of entrance to œsophagus, a sort of post-pharyngeal abscess, but without any of the concomitants of common catarrh or ordinary sore throat, existing seemingly more frequently and being more amenable to treatment than some few practitioners who may not have happened to meet with them are possibly aware of. Almost always of long standing, tuberculous for the most part I am inclined to believe, developing tardily, and often for a long time causing little inconvenience, the cow is known to be somewhat of a "roarer" or "snorer," makes a bit of a noise, especially when down on a full stomach, but otherwise eats and drinks, chews her cud, and milks much like her neighbours and little attention is paid for weeks and months, till occasionally the case takes on the active and extreme form, the swelling inside the throat increases, respiration is interfered with, the noise is heard all over the place, the cow stands with extended head and poked out nose, and tucked up flanks, refusing both meat and drink, rapidly failing in condition, and calling very plainly for a little surgical interference.

In the early days of practice I was somewhat puzzled with one or two of such cases, one specially —long known as a sort of mild "roarer,"—but now extreme, the loud snoring noise easily heard outside the building, the swelling inside the pharynx easily felt, but so hard and firm that the idea of an abscess did not seem feasible, till one day going to the place—on tracheotomy thoughts intent—I was somewhat agreeably surprised to find the patient to all appearance quite recovered. A fit of coughing had set in, a gush of pus through nose and mouth followed, the swelling inside throat I found dissipated, and the cow gave no further trouble.

Talking over the matter at one of our old Veterinary Medical Society meetings with an old and valued friend who is always so willing and able and anxious to disseminate scientific and practical knowledge among his professional brethren (and also, most unfortunately, through the agricultural press beyond that sphere) he turned on me with the question—"Why don't you cut them? In our district such cases are common, and we just carry a small embryotomy knife into the throat, make a good cut, and there's an end of the matter." I certainly was, and am still, extremely obliged to my old friend for his hint, for I have burst or punctured several of these internal throat abscesses since.

Meeting one day an old tuberculous subject in almost the last stages, making a most distressing noise from a large gathering on the offside of the pharynx; a balling iron in the mouth and a good firm push with the middle finger gave exit to a gush of offensive smelling fluid, but the short remaining term of the old cow's life was made somewhat easier, there was no more noise.

A white cross shorthorn heifer two year old, in good condition, been making a noise for a considerable time but now so bad that the dairy folks could scarcely bear it. Attempts to puncture with the finger nail failing, I asked the owner if he would allow me "to cut his cow's throat." He said "Certainly, if you do it well it will save the butcher the trouble." Putting the "bull-dog" in the heifer's nose and giving it to an Irishman to hold with his left hand while his right laid hold of the near horn, the owner steadying the balling iron with his right and his left on the off horn, I told the parties to hold the head with nose extended, and in line with the spine, and a little downward, and if possible fixed and immovable, while I insinuated my hand armed with a small embryotomy knife on the middle finger past the molar teeth and well down the pharynx, with the palm of the hand presented to the *velum p.p.* The knife was a sharp and good one, the incision fair, the amount of pus on hand and iron when withdrawn considerable. A cough and sneeze from the heifer ejected more, the owner stared and the big Irishman scratched his head. Evidently they had never seen "a cow's throat cut" in that way before, and neither in fact at that time had I. The heifer made a slight noise for a day or two after, and then did well, fattening in a few months ready for the butcher.

I do not know how matters are now-a-days, but in the old pleuro-pneumonia contagiosa time one at least of the learned Professors of our Colleges, of much respected memory, did not appear to be specially well up in this form of throat affection. In a dairy of upwards of a hundred shorthorns pleuro had made its appearance, and among the stock were four "suspicious" looking subjects, two, if I remember right, probably tubercular, one septic, and the fourth a "roarer," which we deemed it advisable to submit to the inspection of the City Authorities, as the district local authority. The Professor in charge showed his acumen and skill by declaring that there was no contagious disease in any of the cows, and as for the "roarer" all that could be done was tracheotomy, or if preferred, slaughter. I had previously stated to the owner that if the cows were not seized as contagious and hurtful subjects that I would lance the swelling in

the throat, but the owner believed and acted on the Professor's advice, slaughtered his cow, and on my turning up laughed at the idea of my being able to have done any good to the animal. "A great big tumour in her throat, no one could have cut it out, he had kept it and would show it to me." True enough on a bench was what looked like a big fibrous tumour, somewhat of the shape of two lemons laid end to end, nicely removed by the butcher for my benefit, so hard and firm that for a second I was tempted to think that this was really a tumour after all, but a smart slash with a pocket knife soon showed otherwise, out squirted a volume of well matured yellow pus right on to the waistcoat and trousers of the "brand new suit" which the owner had unfortunately donned for the evening, to his great surprise and manifest disgust—a mild form of retribution, however, for his doing me out of a nice little operation. It would just have been as easy puncturing that large abscess in its fibrous capsule inside that big shorthorn cow's throat as on the bench before us.

These, to my view, are fair specimens of what one finds every now and again in practice among dairy cows. About five months ago, however, I met with a rather undesirable complication. A suburban dairyman had bought a newly calved shorthorn cow at £22, knowing she was making a slight noise through her throat, but which, as she was a big fine-looking animal, he thought he would risk at the slightly reduced price. In her new quarters the cow for a week did very badly, would scarcely eat or drink, some septic discharge from her vulva, udder somewhat amiss, snoring slightly, flat on sides and tucked up in flank—a poor looking object at the price paid for her. Out of curiosity more than anything else I examined her throat inside, and was surprised to feel one of the biggest of these fibrous bags I had as yet met with. Puncture tried with the finger was of no use, even the embryotomy knife, a little off edge, required two or three little digs before an entrance was effected, but the after gush of pus through the mouth, besides what the beast was plainly swallowing surprised me.

A second exploration however showed that I was not as yet done with the case, for though the pus had escaped there remained in the punctured capsule a mass of cheesy-like *débris* or dead tissue, which, although I enlarged the opening to admit the points of three fingers, I found I could not remove, and had to content myself with breaking it down as much as possible in the hope that bit by bit it might escape and disappear. An examination a couple of days after showed that in so doing I had made a mistake. Instead of being content with an opening of a little over an inch, I should have made it sufficiently large, two inches or so, quite easily done at time of puncture when the capsule was comparatively thin and easily torn with the fingers, and removed all the *débris*. Now the incised edges were thickened and firm and not easily manipulated, while the dead tissue or *débris* was much as at first. I spent fully a quarter of an hour breaking this down and getting away as much as I possibly could, calling in the aid of a long, slender, curved forceps, (which I had made on another occasion to try to remove a sprig of hawthorn hedging from a carriage horse's throat) seemingly with fair success, as the cow with some other slight treatment to her udder and uterus began at once to improve, and for the past five months has done well both to herself and her owner.

In other two instances were complications which I did not well understand. In a cow which, according to the owner, had been making a noise for upwards of six months, puncture of a comparatively small cyst gave but little relief, and post-mortem examination showed the tissues of the throat generally in a sort of subacutely inflamed state, swollen and thickened, with the appearance of another abscess more deeply seated in the process of formation.

On a Saturday afternoon very recently a dairyman called stating that he thought there was something in his cow's throat, a bit of turnip or needle, or such like; she wouldn't, and couldn't, eat, was grinding her teeth and frothing at the mouth, and "snoring" a little. I found the cow much as the man said—only a few days bought in and nothing seemingly amiss at first. On exploring the throat I was surprised to feel about as big a bulging and swelling immediately above and behind the soft palate as any I had previously encountered; somewhat soft, but distinctly fluctuating, and bearing away in the direction of entrance to the gullet. Not having a suitable knife with me I tried hard to puncture with the finger, and the more I pressed I made myself believe the thing got softer and more yielding, and though I failed to puncture considerable relief seemed to be given to the animal. Next morning, properly armed with an instrument, I saw the case again but found the swelling so much decreased and diminished in size, and the cow so much improved that I made no further attempts at puncture, and the cow has done well. Whether this was a true case of encapsuled abscess behind the palate, which the efforts at puncturing had ruptured at some point beyond reach, or was due to some other cause are questions which I am unable to solve.

It is rather singular that in none of these cases were there any external indications. A little general fullness of the throat outside in one or two there may have been, but no thickening nor enlargement nor chronic induration of the outer glands, from actinomycosis or tubercle, or more rarely carcinoma, some of which, as everyone knows, cause a good deal of "roaring," especially after meals. As a rule there was nothing outside to indicate the mischief inside. The nearest approach in general appearance and symptoms and sound emitted were two others, in one of which a tubercular tumour of about the size of a walnut had formed inside the trachea, about five inches below the larynx, and a second in which the lumen of the larynx itself was almost obliterated by a seemingly tuberculous growth lining and growing from the sides and interior of the organ involving the vocal cords, etc., a state of matters which could partly be felt by the finger at the rima glottidis in the living animal, and was very plainly seen on longitudinal section post-mortem. In these days of improved and aseptic surgery, when

FIG. I.

1 Edge of Posterior Superficial Pectoral Muscle. 2 Median Nerve Exposed. 3 Elevation formed by Flexor Metacarpi Internus. 4 Ridge of the Radius.

The Seat of Median Neurectomy Dissected.

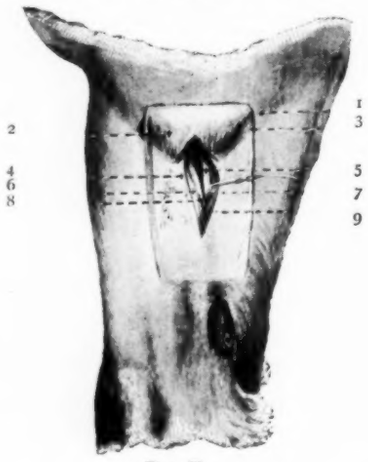

FIG. II.

1 Skin. 2 Posterior Superficial Pectoral Muscle. 3 Superficial Fascia. 4 Deep Fascia. 5 Posterior Radial Artery. 6 Radius. 7 Median Vein. 8 Median Nerve. 9 Flexor Metacarpi Internus pulled backwards.

FIG. III.

1 Ulna Nerve. 2 Elevation formed by Flexor Metacarpi Medius. 3 Elevation formed by Flexor Metacarpi Externus. 4 Posterior edge of Pisiform Bone.

FIG. IV.

1 Skin. 2 Superficial Fascia. 3 Deep Fascia. 4 Ulna Nerve. 5 Posterior edge of Pisiform Bone.

FIG. VI.

1 Elevation indicating Head of Fibula. 2 Belly of Extensor Pedis Muscle. 3 Anterior Tibial Nerve. 4 Exposed Tendon of Peroneus. 5 Belly of Peroneus Muscle. 6 Depression between Peroneus and Extensor Pedis.

FIG. V.

1 Flexor Accessorius. 2 Perforans. 3 Posterior Tibial Artery. 4 Posterior Tibial Nerve. 5 Small Cutaneous branch of Posterior Tibial Nerve which runs over seat of Spavin.

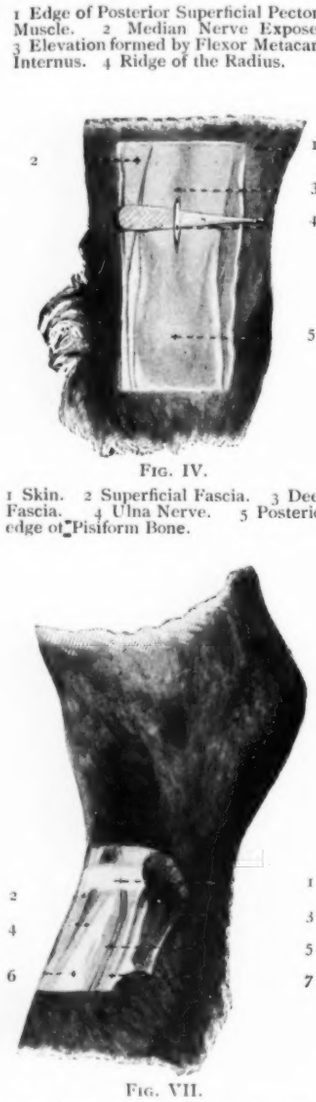

FIG. VII.

1 Annular Band. 2 Tendon of Extensor Pedis. 3 Reflected Skin and Superficial Fascia. 4 Tendon of Peroneus. 5 Large Metatarsal Artery. 6 Large Metatarsal Bone. 7 External Small Metatarsal Bone

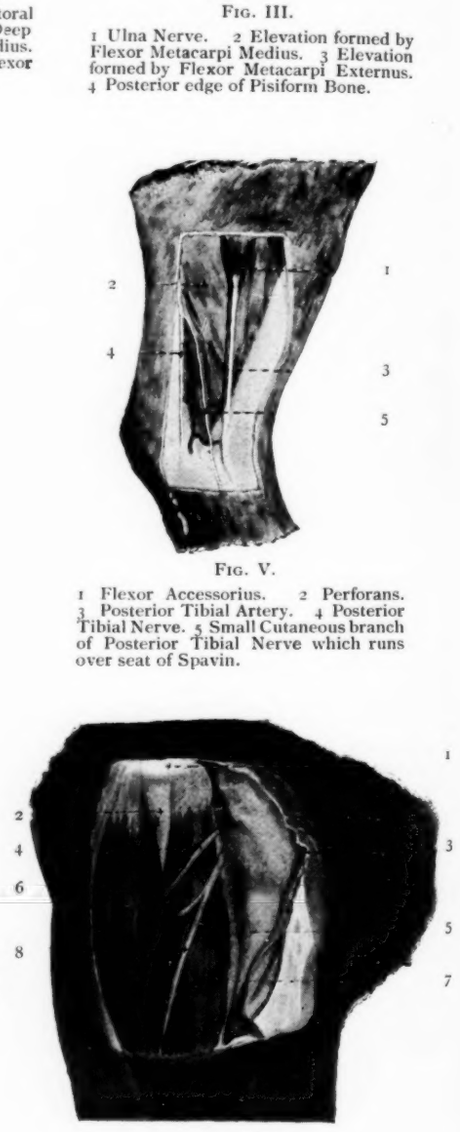

FIG. VIII.

1 Head of Fibula. 2 Tibia. 3 Skin and Superficial Fascia. 4 Anterior Tibial Nerve. 5 Deep Fascia. 6 Extensor Pedis. 7 Peroneus Muscle. 8 Peroneal Cutaneous Nerve.

Surgical Anatomy, by Mr. J. T. Share Jones, (North Wales V.M.S.)

IN NEWFOUNDLAND.

THE POTENTIALITIES OF NEWFOUNDLAND FOR SHEEP.

By Mr. H. C. THOMSON.

Carcinoma of the Orbit: Jan. 1902.

Squamous celled Carcinoma: Poodle.

Carcinoma of the Orbit.

Cancer and other Tumours, by Prof. Hobday, (Central V.M.S.)

section of the transverse ligament and removal of a vocal cord and arytenoid is easily effected, the removal of such small growths from trachea and larynx should not be difficult, but unless every speck and vestige is removed tubercle and such like are apt to grow again, and possibly, except in very special cases, slaughter of the animal is preferable.

This list of cases with some half-dozen others of a somewhat similar kind constitute the sum total of my experience of this particular throat affection which for want of a better term I have styled "Pharyngeal abscess." To those practitioners who like "my friend of the olden time," live in districts where such cases are common and treatment easy, I owe some apology for referring to them, but to young practitioners and students who have not met with such, the notes may not be amiss.

A good matured case gives a nice opportunity for a mild display of easy surgery, which is apt to impress a client favourably. When he tells you "that this cow has been long bad, that she is like to die, and that he thinks of sending her to slaughter," and when you put your hand down into the cow's throat and bring it back covered with pus, and the roaring noise ceases and the cow does well—his little stare of surprise is worth something. The operation can of course easily be done by telling a big fellow to catch hold of the cow's nose, twist her head round, and with his back to her shoulder keep her steady, but if she is a quiet beast better have her outside. Get a man to the nose, two others to the horns and balling iron, tell them to be sure to keep her head straight and rather low, stand back yourself, don't take any hold, bare your arm above the elbow; arm your finger with a little bit of glittering steel, make a wry, learned face as your knuckles knock against the sharp molar teeth, but keep your arm straight, be sure of the incision, enlarge the opening afterwards if necessary—the result should not be to your discredit. In a big shorthorn cow's wide and roomy throat there is of course less difficulty than in that of a small or young Ayrshire. With a patent gag or a sliding balling iron the mouth may be forced open to almost any extent, and puncture of the abscess by lancet or knife attached to a long handle—as recommended by some for post-pharyngeal abscess in the horse—might be had recourse to. Of hæmorrhage either at the time of opening these abscesses or afterward, I have seen nothing—enough of yellow pus, but no blood save perhaps a drop or two from the little incision in the mucous membrane, none from the interior of the abscesses or adjacent tissue.

C. Cunningham, M.R.C.V.S.

Slateford, April 21.

Epizootic Abortion—Departmental Committee.

The President of the Board of Agriculture and Fisheries has appointed a Departmental Committee, with Professor M'Fadyean, principal of the Royal Veterinary College as chairman, to inquire into the pathology and etiology of epizootic abortion, and to consider what preventive and remedial measures may be adopted—*Daily Chronicle.*

THE POTENTIALITIES OF NEWFOUNDLAND FOR SHEEP.

By H. C. Thomson.

Until quite recently Newfoundland was looked upon as quite an impracticable country for sheep. It was said to be too boggy; that there was not enough pasturage; and that the winter is so long, and so cold, that it is impossible for sheep to support themselves, and that they would have to be housed and fed all through it.

The belief in the unfitness of the island for either stock-raising or agriculture was due to the obstinately maintained endeavour both of the Home Government and of the Newfoundland merchants to keep the people engaged exclusively in fishing, and to discourage them from any other occupation, a policy which has led to the Island, which is the oldest of our Colonies, and a third larger than Ireland, being still in its present undeveloped condition. Its baneful effects will long continue to be felt, and to exercise a depressing influence in spite of the wiser counsels which now prevail.

The consequence of it was that all farm produce was imported from Canada, mainly from Prince Edward Island, although the country was quite capable of supplying more than was necessary had the inhabitants but cared to take the trouble to procure it. Many competent observers gave this as their opinion and wrote warmly about the capabilities of the interior and of the western side of the Island, so different to the rock-bound eastern coast where the bulk of the people were content to live, because it was nearer to the Great Banks of Newfoundland, where the cod fishing was mostly carried on. Old prejudices die hard, and little heed was paid to the few, for the most part visitors, who turned their thoughts to something besides the fisheries.

In the early days of colonization the tone was altogether different. Sir H. Gilbert writing in 1583 says: "The grasse and herbe doth fat sheepe in very short space, proved by English merchants which have carried sheepe hither for fresh victuall, and had them raised exceeding fat in less than three weeks." This doubtless led to the instructions given to John Guy by the Chartered Company (of which Lord Bacon was the guiding spirit) which sent him out in the reign of James I. He was told that "to make experience of the nature of the country for sheepe were not amiss; because there want not warm and fertile places, and abundance of pools, things most requisite for that kind of husbandry."

So, too, McGregor, in 1829, in his well known book on the North American Colonies, says of Newfoundland, "The rich pasturage which the Island affords adapts it in an eminent degree to the breeding and raising of cattle and sheep."

He compares it favourably with the Western Highlands of Scotland, but I would venture, as regards sheep, to compare it rather with Norway and Sweden and more particularly with Finland. They afford a more instructive parallel; for it is com-

monly asserted that Newfoundland can never become a sheep-raising country on an extensive scale because it is too wet and boggy.

Now in Finland the proportion of water to land is the largest of any country in the world, the lakes constituting 12 per cent of the total area and the bog land another 20 per cent. Moreover, the geological formation is almost identical: hard primary and metamorphic rock covered with lichens and moss and scooped out into innumerable lakes and ponds, with fertile stretches of grassy land in the hollows and around the lakes. Yet in Finland, in 1898, there were 1,092,420 sheep; and in Sweden, where the extent of marsh and fen land is almost equally great, there were 1,261,493, whilst in Norway there were still more, no less than 1,417,500.

Why should there not be an equivalent number in Newfoundland? It has been abundantly proved that the country is well adapted for them and that they will live and thrive if properly looked after. A beginning has already been made, but the increase, though steady, is slow, disappointingly so, owing, it is quite evident, to the fact that the majority of the people have their attention concentrated upon the fishing, and that any stimulus to farming must come from outside.

The statistics are difficult to get, but the census for 1901 showed that 23,590 sheep were killed in that year as against 20,216 in 1891, and more significant still that 673,968 lbs. of wool were obtained as against 154,021 in 1891.

Land can be obtained anywhere in the interior, but by far the best districts of the island for sheep runs are to be found in the west and north-west, in what is known as the French shore. Here there was formerly great difficulty owing to the continual friction with the French. That difficulty has been happily got rid of by the recent Anglo-French Convention, and the experiment is well worth trying whether sheep runs on an extensive scale might not be made to pay. If they could they would be much nearer the British market than most sheep-producing countries, Hawke Bay being less than 2000 miles from either Glasgow or Liverpool.

I may mention that during the summer of last year I spent nearly three months on the West Coast and travelled right up the northern Peninsula from the Bay of Islands to the Straits of Belleisle. There is an abundance of wild pasture land which could be obtained on very easy terms, for the Newfoundland government is anxious to give every assistance in its power. The trial ought only to be made, however, with a good deal both of capital and of practical knowledge else it is sure to result in failure. On the other hand if it were successful the profits would be great, and the market a sure one both in Great Britain and in America.

One thing in its favour is that, so far as I could gather, there has never been any sign either of liver fluke or of foot-rot. The creature that causes the liver fluke would seem to be absent, and it is possible that the long exposure to the snow during the winter may render the sheep immune to the latter disease, otherwise, constantly wet as they must be, both in summer and in winter, grazing in the swampy land which is found everywhere, it is difficult to understand why they should escape. I was told also that they grow an exceptionally heavy fleece, and that the wool is of excellent quality.

NORTH WALES VETERINARY MEDICAL SOCIETY.

An ordinary meeting was held at the Mostyn Arms Hotel, Rhyl, on Tuesday, March 7th. Present: Messrs. R. Jones, (President), O. Trevor Williams (Vice-President), R. S. Rowlands, E. P. Edwards, Frank Booth, J. T. Share-Jones, T. C. Howatson, Hon. Sec. and Treasurer.

Apologies for non-attendance were received from Messrs. R. Price, F. G. Edwards, H. O. Richard, G. J. Roberts, and Prof. Williams.

The minutes of last meeting were read and confirmed.

Mr. O. T. WILLIAMS proposed, and Mr. BOOTH seconded, that the sum of one guinea be subscribed annually to the Victoria Veterinary Benevolent Fund. Carried.

Prof. Share-Jones was appointed to represent the Society at the forthcoming Congress of the Royal Institute of Public Health.

PRESIDENTIAL ADDRESS.

R. JONES, M.R.C.V.S.

Gentlemen,—My first duty is to thank you for the honour you have done me in electing me President for the current year. I need not tell you that I appreciate the honour very much, but I feel that the president of a society with its members so scattered as the members of this Society are, cannot do very much more than preside over its meetings, and take part in its discussions. Had we greater opportunities for interviews, we possibly could influence one another to take more interest in our meetings and make greater efforts to attend.

I am well aware that practitioners in Wales must have a large area to cover in order to make anything like a respectable living, so our difficulties are quite of the natural order of things, and we have to do the best we can under the conditions.

I may say that each time I have attended the meetings of this Society—although the number present was not large on some occasions—I have been greatly interested, and have had old ideas refreshed and gone home with more enthusiasm for work.

I have taken upon myself to invite you warmly to help this Society by attending its meetings, for it is conceded by all that free discussions on professional matter are the chief means by which we can mutually instruct and benefit one another.

I would also like to introduce to your notice and point out the advantages of joining the National Veterinary Benevolent and Mutual Defence Society. In looking over its list of members I find there are only three or four of us amongst them. We do not know when—through no fault of our own—we may be landed in costly litigation and pecuniary need. You can imagine what a comfort it would be to have a Society of this kind to appeal to. According to the report of 1904, several applications were considered and these were almost all from non-members.

Even if we have no occasion to ask for its aid we have the satisfaction of contributing to a fund which would give a helping hand to the needy ones.

I am not taking a gloomy view of our prospects and future, though we are threatened with motor power to

take the place of a large number of horses, other fields are opening and will open for us. Probably the town practitioner is and will be more adversely affected by the auto-motor. It will not perceptibly affect the country practitioner, because farmers are turning attention more than ever to stock rearing, and so long as stock is bred our services will be called for. Our duty is to keep abreast of the times and to fit ourselves for whatever professional duties we may be called upon to undertake.

The Corporate Body and the leading lights of the profession are doing a great deal to educate public authorities and the community generally to value our services and to give us appointments that we by our training and qualifications are fitted to fill. Although the profession as a body may be raised to a high standard of public estimation, it lies with us individuals to prove by the way we discharge our duties whether it merits the importance and confidence it asks for.

I notice that one of the suggestions of the Edinburgh Medico-Chirurgical Society is : that dairy farms should be under careful veterinary inspection. Coming from a body of men that had for their deliberations and inquiries the interest of the public health, this cannot fail to impress on the public authoreties the importance of having the hygienic conditions of the dairies and cows looked into, in order to secure a pure supply of milk to the people.

Important changes and events have happened in the veterinary profession within the last eighteen months, such as the reform of the Army Veterinary Department and the attaching of veterinary schools to universities—charges that will eventually prove advantageous to the profession.

These remarks I humbly tender for your consideration.

EVERSION OF THE BLADDER COINCIDENT WITH DIFFICULT PARTURITION IN A MARE.

By R. S. Rowlands, Abergele.

Starting out on Sunday morning, 29th May, 1904, in response to a message, to a case of lameness, I met a gentleman tearing along on a bicycle. He hailed, and said that he had a mare that could not foal, that the water-bag was hanging out, and that the mare had been straining very much for the last two hours, but there was no sign of a foal. "Of two evils I chose the bigger"—this time at least—and returned home for the necessary paraphernalia and proceeded there. Arriving on the scene I found a huge cart mare straining violently at intervals, with a bag hanging from the vagina ; but the owner gave an exclamation of surprise and went white in the face when he was informed that it was not the "water-bag" as he had thought, but the urinary bladder inverted ; for he said he had been trying to tear it with his hands, but finding the operation too difficult proceeded to perform it with his knife, when a good neighbour who happened to be present persuaded him to abandon his heroic idea, and to send for a veterinary surgeon.

The urinary bladder appeared like a scarlet bed tumour of the size of an ordinary man's head hanging from the vagina, with urine continually dripping from it, imparting its characteristic odour ; the bladder was evidently very congested from the mutilation it had been previously subjected to. I washed my hands with soap and warm water containing some sanitary fluid, then smeared them with carbolized oil. Manipulating the tumour, it tapered gradually into a neck, which terminated in the meatus urinarius on the floor of the vagina. The everted bladder was filled with a fluid which must have been forced into it from the peritoneal cavity by the violent parturient throes of the mare, and reducing this buoyant condition was found impossible. As pressure—which was but gentle I admit—would not evacuate it of the fluid, I gave my hands another swill, and proceeded to manipulate the fœtus *in utero*. I found both knees to be flexed, and partly in the pelvic cavity together ; the forehead was in close contact with the *crest* of the pubis, with the nose pointing down into the abdominal cavity. I felt that the fœtus was not dead.

I decided on the attempt to rectify the limbs before the head, for there is always the danger of the latter being forced out by the parturitient throes immediately the nose is brought into the pelvic cavity if the fore limbs are missing, and once the head is out returning it is no joke ! I managed to secure a cord—previously washed and carbolized—round each pastern ; then putting a man to pull on one at a time, whilst I, seizing the limb at the knee joint, pushed it back into the uterus. After some exertion in this way both limbs were brought to the normal presentation. Then pushing back the limbs into the uterus, slightly flexing them at the fetlock joints, I pressed them down just below the crest of the pubis. This latter plan being, in my experience, a very convenient one to prevent the fœtus becoming jammed into the pelvic cavity when grappling for the head. The limbs so placed seem to act as props to keep the body of the fœtus well in the uterus, and thus affords more room to work. This answers equally well in both cows and sheep. Taking another rope—washed and carbolized—I placed it on the head halter fashion, in the same fashion as some horse-trainers put one for the first time on a wild unbroken colt. Traction now by means of the halter, combined with the guidance of my hand inside, and the head after some difficulty was got into the pelvis, the halter then was immediately slackened, and the traction transferred to the cords attached to the pasterns, which soon slipped into the pelvic cavity. Then with very hard pulling by four men the foal was extracted, but unfortunately dead by this time.

It was carried away, and I began to consider the everted bladder once more. The fœtal membranes by now were hanging over it. I gave my hands a fresh antiseptic wash, placed a man to hold the tail and the fœtal membranes well up, whilst with some warm water, previously boiled, I washed the bladder and vagina thoroughly. Then carefully smeared it with carbolized oil. With pressure now applied it immediately became evacuated of the peritoneal fluid it contained, and with considerable facility I returned it. The urethral canal, to my surprise, was dilated to such an extent as to admit my hand with ease.

I decided to leave the fœtal membranes, as I thought their pressure on the meatus urinarius would temporarily aid to prevent a recurrence of the mischief.

The mare was straining still and arching her back ; her pulse was irritable but strong. The rectal temperature was 102° F. She was allowed a few draughts of cold water, and then she ate a bran mash. Her drink was restricted to a thin cold stewed linseed, her food to rye-grass hay, both *ad lib*, and a bran mash twice a day. A dose of grs. xx. quin. sulphas dissolved was administered in a pint of the linseed tea every three hours day and night.

A message was sent to me on the evening of the same day, stating that she had parted with the membranes, that micturition was frequent, and she was straining after each, that the urine was in small quantities and slightly tinged with blood ; in other respects she was about the same. The messenger was sent back with directions to continue both the same treatment and diet.

Feeling a little "at sea" as to further treatment, I consulted Finlay Dun, under the heading of Cystitis, and found that he advocates ascertaining the character of the urine—whether acid or alkaline—and treating accordingly. I went to see her the following day. She was duller in appearance ; temperature 104° F. ; pulse weaker and more irritable ; appetite not so good ; mic-

turition frequent; the straining ceased, except for a short time following micturition; urine in small quantities and whitish. I took some for examination at home. Blue litmus paper was not changed. With bicarbonate of potash I obtained no result. It was alkaline in my opinion. Feeling elated at making the discovery, I mixed powders, each containing:

P. potass. chlorate, ʒj.
Liq. ext. belladonnæ, 3 grs.
Bals. copaibæ, ʒj.

some P. gentian to give body, with directions to give one in a pint of the linseed tea three times a day. I went to see her on the evening of the following day and found considerable improvement in all respects. The same medicinal treatment was continued for four more days, and the same dietetic treatment for so many weeks. She gradually recovered, although inclination was frequent, and the urine in small quantities for some weeks after. She was turned out to grass to make a complete recovery.

SURGICAL ANATOMY.

By Prof. J. T. Share-Jones, M.R.C.V.S.,
Liverpool University.

Gentlemen,—Some time ago when you invited me to read a paper before this Society I readily consented, since I fully appreciated the honour done me in according me the invitation. But when I came to the selection of a suitable subject I found that the task I had undertaken was by no means an easy one, bearing in mind the request of your Secretary that I should deal with something practical.

In searching round for something of interest I have perforce had to fall back upon my own subject—Anatomy—the methods of teaching and objects of studying which have time and again occupied my mind. To me it has frequently appeared as though teachers of anatomy endeavoured to screw out of the subject, as it were, more than the subject really contains, by paying too great attention to insignificant details such as cannot possibly be put to any practical use in the application of the subject to the surgical art. These are laid before the class with quite as much stress as points which from a surgical point of view are of fundamental importance, with the result that the pupil's mind is crammed so full of facts that it is quite impossible for him to mentally assimilate the information meted out to him. Emphasis, that very important factor in teaching, is unfortunately too infrequently brought into play, so that the pupil's mind receives but very little assistance in the assimilatory process, and his knowledge of the subject becomes every day a more verbal one rather than the pictorial one which in the case of anatomy is the only real mental appreciation of the subject. I would far prefer the pupil who could sketch an area to the one who devoted his attention to the verbal description. In the one case, however rough and inartistic his sketch may be, so long as he has the correct relationship of one part to another and a fair idea of proportion, we have direct evidence that his knowledge in the modern psychological acceptance of the term, is real knowledge, gained through the most highly developed channel, namely, the sense of sight, whereas in the other case we have no such evidence. It should therefore be the duty of the teacher to encourage at every opportunity graphic illustration, and there is no more potent method of bringing this about than the frequent use of the blackboard by the teacher. Blackboard illustrations are far more valuable than ready-made diagrams. In the one case the pupil's interest is immediately aroused by the fact that the picture is a possibility, and he becomes an active participant in the proceedings, whilst in the latter case he is too frequently quite a passive supporter of what is going on, and in some cases, even a passive or may be an active resister depending upon the quality of the discipline.

Of course there are those who maintain that too great attention to detail cannot possibly be given, on account of the immense value of anatomy in the development of that all important faculty of observation. Whilst not for a moment doubting its value in this respect I maintain that the primary object of anatomy is utilitarian rather than developmental. Previous to his taking up anatomy the pupil has already taken his general subjects which have or should have been selected with the object of cultivating his mental faculties, for most of these subjects have very little direct bearing upon the pupil's after work. But they have, as I have already stated, their proper place inasmuch as they are the means of preparing the pupils mind for the reception of the particular knowledge which is to follow. It is very unlikely that a student could possibly take up a course in Botany, for instance, without whilst so doing cultivating accurate observation and keen perception. The same applies to mathematics and logic (which I am sorry is not a compulsory subject in our curriculum), with regard to the higher faculties of judgment and reasoning. The teacher of Anatomy therefore may reasonably expect his pupils to come to him with their faculties fairly well developed, and is justified if, as far as the pupils education is concerned, he treats his subject strictly as one of utility, and whilst teaching always bears in mind its application to the practice of surgery. If he does not do this, for the reasons I have stated above and in addition since there is an interval of a year before the pupil takes up the subject of surgery, anatomy becomes relegated to the category of preliminary subjects. In the curriculum of human medicine this difficulty is obviated by the institution of a course of study in surgical or applied anatomy, or the study of those parts upon which I have already maintained greater emphasis should be given in our own course.

By this means there is a gradual and logical transition from anatomy to surgery, which gradation is so essential to the production of successful surgeons. As our course only extends over four years it would not be practicable to introduce an additional subject, but I suggest that a certain special value be, by examiners and teachers alike, put on the subject, so as to bring out prominently those parts of it which deal directly with the practice of surgery. Just as the writer of a good text book gives the essence of a subject in large and striking type, at the same time inserting every other part which is necessary to make the work a complete one in small type, so should anatomy be presented to the pupil in its entirety, yet in such a manner that the more insignificant details are simply grouped around the great features of the subject after these features have been assimilated by the pupil.

As a means of illustrating the methods which I have suggested we will consider a few seats of operation. The first step in performing any operation is to take a general survey of the area to be operated upon. This point cannot be too emphatically impressed upon all operators. As a general rule students in particular are too eager to commence the use of the knife, and the result is that cutaneous incisions are frequently made in situations which are unfavourable for the performance of the operation, and entail a good deal of unnecessary after labour for the operator, even if the operation be successfully carried out. The surface markings are therefore of paramount importance. In fact they are the finger posts of successful surgery. The surgeon who commences an operation without first giving them his fullest consideration is like a mariner without a compass.

Median Neurectomy.

In considering the operation of median neurectomy, which is one of the few particular operations I purpose dealing with, we know that the nerve becomes superficially placed on the inner aspect of the upper third of the fore arm. This, then, is the area to be considered. Upon examination of the part, the outline of the inferior edge of the posterior superficial pectoral muscle is distinctly seen, and should be carefully noted (Fig. I.), as also the inner edge of the radius which causes a bulging which may in some animals be seen and in all distinctly felt. This operation was first performed as high up as possible on the inner side of the leg. To this seat there are several objections. Firstly, the pectoral muscle is here of considerable thickness, and hence in cutting through it there will inevitably be a considerable amount of hæmorrhage. Another objection is that should a neuroma form on the proximal end of the divided nerve, which frequently happens, it is impossible to perform the operation again higher up the limb. A second seat which was adopted later was quite clear of the pectorol muscle, namely, some five or six inches down the shaft of the radius. In this case there is very little hæmorrhage (only from cutaneous vessels), but the nerve here is placed at the back of the radius and near the middle line of the limb. A great difficulty is thus met with on account of the leverage which is necessary to bring the nerve through the cutaneous opening. Another difficulty is that the nerve cannot be seen even upon widely separating the lips of the incision. The operator has therefore to rely solely upon his sense of touch. After examination of a large number of limbs, the writer has come to the conclusion that the best seat is that obtained by making an incision a quarter of an inch behind the edge of the radius, the length of the incision to take in half an inch of the pectoral muscle, and then extend the incision downwards for another half-inch. The muscle is here very thin and consequently there is little hæmorrhage. The following structures should be cut through in turn—skin, superficial fascia, and muscle, when the deep layer of dense fascia is seen. Extreme care should now be taken since at this spot the nerve and vessels are quite close to deep fascia for this is the point where they curve round the edge of the radius in front of flexor metacarpi internus. As a precaution the deep fascia should simply be pricked by taking the knife in the hand with only about a quarter of an inch of the point of the blade exposed. Through this small opening a grooved director should be introduced and the opening may thus be safely enlarged. The nerve is now exposed together with the posterior radial artery and its accompanying vein (Fig. II.), but the relation of these structures to one another at this spot is very inconstant. The vein may be found in front of the artery or *vice versa*, and the same applies to the nerve. In one case which came under the writer's observation the nerve was blended in the wall of the vein and both were surrounded by a fibrous capsule. But whatever relationship the parts bear one to other, all are here quite superficial. They are easily seen by the operator who is thus enabled to satisfactorily expose the nerve by dissection. No leverage is necessary at this seat and it has a further advantage inasmuch as should it be subsequently necessary to repeat the operation the higher seat is still at the operator's disposal.

Having thus treated the fundamental anatomical points in the performance of the operation, and so aroused the interest of the pupil, the complete anatomy of the various structures mentioned, *e.g.*, the origin, course, and distribution of the vessels and nerve, attachment, and action of the muscles mentioned, etc., may be proceeded with.

Taking another seat of operation in the fore limb, namely, that of ulnar neurectomy, the area to be examined in this case is the posterior aspect of the limb just above the knee. Upon referring to fig. III. we see that the most prominent features in this neighbourhood are :—(1) The posterior edge of the Pisiform bone which projects backwards almost in the middle line of the limb. (2) Running to the upper aspect of the Pisiform are the tendons of the middle and external flexors of the metacarpus. (3) Between these tendons may be felt a distinct depression, and in this depression a vertical incision should be made about 3½ inches above the Pisiform. The skin and superficial fascia are first cut through, and then by cutting through the deep fascia (Fig. IV.), and separating the edges, the nerve is seen lying in the space between the two tendons. Occasionally it may not be seen, and then it is usually found on the anterior aspect of the tendon of the middle flexor. It should be noted that the incision in performing this operation is made just a little to the outer side of the middle line.

Posterior Tibial Nerve.—On the inner aspect of the hind limb this nerve is superficially placed where it emerges from beneath the Gastrocnemius muscle some nine inches or so above the hock. It then takes a course downwards in front of the tendo-achilles, and just at the hock it divides into the two plantar nerves. Most writers on the subject of neurectomy of this nerve (in fact all which I have seen) advocate a point between three and four inches above the hock as the seat of operation, and the fixing of the seat at this point may, in my opinion, account for the non-success of such a large percentage of operations on this nerve. Upon careful dissection a very small branch which runs right across the usual seat of spavin is found to be given off by this nerve. The branch lies immediately under the skin, and hence is rarely seen in an ordinary dissection since it is usually removed in reflecting the skin. Special dissection has therefore to be made for it.

In a number of dissections where opportunity was presented for taking measurements the writer found that the above mentioned branch was given off from the posterior tibial at a point, the average distance of which from the point of the hock was five inches. (Fig. V.) It occurred to me that in cases where the exostosis is fairly prominent lameness might be due to pressure on this branch and providing such were the case the present seat (*i.e.* three to four inches above the point of the hock) was too low to be effective. Shortly afterwards I was presented with an opportunity for putting a higher seat into practice, and made the incision between six and seven inches above the summit of the calcis, and the result was a complete success. I have recently had three consecutive successful results, not a great number certainly—not the number of cases one usually hears enumerated by a surgeon in advocating a point, but since the nerve is here quite superficial, is easily found, and there is no vessel to injure (whereas a flexure of post tibial artery is near the lower seat) it will be admitted that the anatomical advantage alone of the higher seat would be sufficient to justify one in recommending it even if no cases were stated.

Peroneal Tendon.—On passing the hand over the anterior and antero-external aspect of the limb just below the hock, two tendons are distinctly felt, and more careful examination will reveal the fact that they unite with one another. The more outer of the two tendons is that of the peroneus muscle, the other is that of the extensor pedis. Occasionally the tendon of the peroneus is cut in the treatment of stringhalt, and in performing this operation both tendons should be felt, and the incision should be made near where they unite with one other, and in the direction of the length of the peroneus. The reason for adopting this seat is apparent when the dissected part is examined (Fig. VI.) for it will be seen that a little higher up the large metatarsal artery passes under the peroneal tendon.

Anterior Tibial Nerve.—This nerve is most superficially found where its dips in between the extensor pedis and peroneus muscle on the external aspect of the limb just below the stifle. (Fig. VII.) Upon examination of the part the contour of the belly of the extensor pedis is distinctly seen where it forms quite a well defined bulging of the skin. Behind it is the peroneus. Taking a vertical line upwards from the point of apposition of the two muscles we feel the head of the fibula, and this is our guide, for the best seat for the picking up of this nerve is that recommended in this country by Macqueen, *i.e.* two inches below the head of the fibula, the incision being a vertical one in the depression between the two muscles named. The skin, superficial and deep fascia, are cut through and the nerve is thus easily exposed. (Fig. VIII.) Pfieffer recommends a seat much lower down the limb, but in this case the nerve is deeply placed between the muscles, and the advantages of the above superficial seat are obvious.

In each case the detailed anatomy of the part should be completed, just as mentioned in connection with the first example.

It is difficult to depart from old traditions even in methods of teaching, but in conclusion, gentlemen, just as we cannot ignore the great upheaval in the teaching of history and geography, and particularly Euclid (which hitherto had held its place for so many centuries as such but has now become geometry) these upheavals all tending more towards economy of time and utility and less towards the esthetic side of education, so may we welcome a more topographical and pictorial dealing with a subject generally admitted to be one of the pillars of our professional education—ANATOMY.

The discussion on Prof. Share-Jones' paper will take place at the next meeting to be held at Llandudno.

LUSUS NATURÆ.

The photographs represent two different aspects of a monstrosity which was found one morning by a client amongst a litter of newly born pigs, nine of which were live normal pigs. The monstrosity was dead when found; probably it never breathed.

They are two complete females uniquely united, having nothing in common except the umbilical cord. The union at the heads is on their respective dorsal surfaces, and is firmly ossific, presenting the appearance of one common cranium with the two faces looking in totally different directions, possibly there may be a bony septum between the two brains. At their necks each of the bodies appears to invert at right angles to its respective head, so that the bodies become united on the ventral surfaces at the sterni, where the union is partially ossific. Immediately at the umbilicus the union ceases and the posteriores are separated. Parker Davies, Esq., chemist, Rhyl, is credited for preparing the photographs.

R. S. ROWLANDS.

A good discussion followed Mr. Rowlands' paper.

Mr. O. T. WILLIAMS gave notice that at the annual meeting he would propose that rule 5 be altered in the direction of appointing more than one Vice-president.

Votes of thanks to the President, Mr. Rowlands, and Prof. Share-Jones terminated a small but enjoyable meeting.

T. C. HOWATSON, *Hon. Sec.*

THE CENTRAL VETERINARY MEDICAL SOCIETY.

An ordinary general meeting was held at 10 Red Lion Square, W.C., on Thursday, April 6th, at 7 o'clock p.m., Mr. E. Lionel Stroud, the President, occupying the chair. There were present: Messrs. A. L. Butters, James Rowe, Arthur E. Payne, Percy S. Howard, L. Savournin W. Perryman, Sydney H. Slocock, P. C. Woolston, J. B. Hare, R. J. Foreman, J. Willett, R. Porch, W. R. Davis, Wm. Caudwell, Sydney L. Stephens, P. W. D. Smith, L. G. Gryspeerdt, W. Roger Clarke, Ralph Bennett, Nicholson Almond, Geo. C. Lowe, Herbert King, F. W. Wragg, J. Douglas, H. Lomas, W. E. Murts, Alfred Prudames, Arthur N. Foster, A. E. Bayley, C. W. W. Brown, D. Wyllie, T. S. Green, Profs. Wm. Pritchard and F. Hobday, and Hugh A. MacCormack, hon. sec.; and as visitors, Messrs. Dr. Walter Kidd, G. Elmes, A. Fagg, W. J. Watt, Geo. A. Banham, Prof. A. E. Mettam, and R. E. Holding.

CORRESPONDENCE.

The SECRETARY announced the receipt of a letter from Prof. Hobday thanking the members for their letter of condolence with him on his brother's death.

Letter regretting inability to be present was announced as having been received from Lieut.-Col. Blenkinsop.

Report and accounts of the National Veterinary Benevolent and Mutual Defence Society.

A letter was also read inviting the Society to be represented at the 8th International Veterinary Congress at Buda-Pesth this year; and on the proposition of Mr. Butters, seconded by Professor Pritchard, the consideration of the letter was adjourned to the next meeting.

Morbid Specimens.

The President showed a Yorkshire terrier puppy with double joints on both front legs. He had known the history of the animal for some generations; they were all pure bred dogs and the deformity had never been seen in any other of the family. The second joint was between the elbow and the knee.

Replying to Prof. Pritchard, the President said perhaps the words "additional joint" better described the condition. As far as he could see, there was a joint about three parts down the radius, and there was a portion of bone before coming to the metacarpal bones.

Mr. Holding said the term double-jointed usually meant a reduplication of some normal condition. It seemed to him it was merely an enlargement of the carpus due to rickets. Such a condition was quite common in the Zoological Gardens where dogs, jackals, and foxes were bred in a state of confinement, the enlargement being frequently seen on the radial side.

Professor Pritchard asked what the enlargement was due to?

Mr. Holding said he was not a veterinary surgeon, but he had had 23 years' experience as a veterinary draughtsman and had been drawing for a great number of years for the Zoological Gardens, and he had observed that the same kind of thing occurred again and again, and he had specimens in his collection.

The President said he understood the puppy was born with the peculiarity, and that was the only history it had.

Election of Fellow.

The ballot was taken for the election of Mr. Alfred J. Sewell, M.R.C.V.S., and the President announced that the election failed, as less than four-fifths of the members present had voted in his favour. A short discussion arose, and a second ballot was taken with the same result.

ON THE FORMATION OF HAIR-WHORLS.

Illustrated by the Variations in the arrangement of Hair on the neck of the Domestic Horse.

By Walter Kidd, M.D., F.Z.S.

It has been suggested that hair-whorls and certain other congenital arrangements of the mammalian hair are produced by mechanical causes, and this inference has been drawn from a considerable mass of evidence. But it is clearly desirable, if possible, to proceed further in the direction of proof. Verification by experiments arranged for the purpose is impossible, for the variations in question can only be the result of certain forces applied throughout a very large series of generations. Experiment being thus precluded, the nearest approach to it seems to be reached by observation in a large number of instances of what may be termed the undesigned experiments of Nature. One of the associated groups of phenomena, whorls, featherings, and crests, has been here selected for detailed investigation. Many whorls, such as those in the inguinal, pectoral, and frontal regions of the domestic horse, are fully evolved and stable, so much so as to suggest additions to the accepted systematic generic or specific characters* of certain mammals. Such developed arrangements would clearly not suit the purpose in view. It has been necessary therefore to select an animal form, and a region of its body, where a whorl with its feathering and crest can be seen in the making. It was also necessary that the animal form should be a common one, so that a very large number of specimens could be observed, also that this form should be one subject to a great degree of mechanical movement, and that the region selected should be specially subject to this movement, and yet should not normally present any whorl, feathering or crest. These requirements are met by the case of the domestic horse and the lateral cervical region of that animal. It may be stated here that the results dealt with have been arrived at after observation of not fewer than 3,000 specimens, though notes of all these have not been kept.

For the purpose of showing that the lateral cervical region of the horse does not normally present any variations, 100 successive individuals were examined and noted, with the result that in 62 of these the hair was arranged in the normal manner on the near and off sides, and in 18 more it was normal on one side, and in the remaining 20 there were definite departures from the normal. Thus the normal arrangement is found, one or both sides, in about 80 per cent. of domestic horses. The view that the arrangement here described is the normal type on the neck of the domestic horse is borne out by observation of this region in all other Equidæ, and indeed nearly all Ungulates (the genus Connochætes showing slight variations from it) so that it cannot be doubted that the gradations depicted in the drawings display some change in the hair-slope in process of formation. The normal and various departures from it are shown in the following drawings.

The anatomical facts of the region chosen are such as lend themselves to an unusual degree of mechanical influence conveyed to the surface by active and long continued locomotion, as occurs in the domestic horse more than in any other known animal form. The ligamentum nuchæ of the horse is an extremely powerful structure and is well calculated to support its large and weighty head without the expenditure of muscular force. It is attached to the occipital bone, the neural surface of the last six cervical vertebræ and the spines of the 2nd and 3rd dorsal vertebræ, being merged into the supraspinous ligament. On account of these attachments it is very much concerned in the slighter but almost constant movements of the neck of a horse in motion, and thus exercises an important function.

In the next place the cervical muscles, splenius, sterno-mastoid, and trapezius are very powerful, and are in almost constant action during the locomotion of the horse, on account of the flexion, extension and lateral movements of the neck which take place, and the marked jolting of the structures which accompanies rapid movements. In the action of walking up a hill or drawing a heavy load, the horse is seen to nod its head at each step; this does not take place in trotting, cantering or galloping, but in these actions irregular movements of all kinds are visible in the neck and indeed they increase in frequency and variety with the pace of the individual horse. Thus the ceaseless elastic action of the ligamentum nuchæ and the intermittent but very frequent actions of the cervical muscles mentioned afford special reasons for expecting that in this region interference with the normal direction of the hair would be found, and the result of observation is to show that all degrees of departure from the normal, up to a fully developed whorl with its attendant feathering and crest, are seen in certain individuals of a large series.

The twenty-four drawings which embody the results obtained have been selected as exhibiting the finest gradations of the changes in question, and they are divided into four groups, A, B, C, D.

Group A. Fig. I. represents the normal arrangement, in which the slight differences (A & B) are apparently due to the greater or less width of the neck.

Fig. II. A completely developed whorl with wide feathering and crest W.F.C. occupying the whole length of the neck from the anterior border of the trapezius to the level of the ears.

* On Proposed Additions to the Accepted Systematic Characters of certain Mammals, *Proc. Zool. Soc.* London, Jan. 19, 1904.

These have been placed in apposition for the purpose of showing the beginning and end of the series of changes noted, and the following Figures III to XXIV illustrate intermediate stages.

Group B. Illustrates modes of division of the hair-streams of the neck.

Fig. III. Normal arrangement when the coat of the horse is dry, B, and the commencement of a division of the stream of hair when the coat has become heavier from wetting by rain, A.

Figs. IV, V, VI. Upper line of division along the lower border of the rhomboid muscle.

Figs. VII—XIII. Lower line of division along upper border of sterno-mastoid with trend of upper portion of stream towards the mane.

Group C. Illustrates the stages of the formation of a whorl, feathering and crest.

Figs. XIV—XVII. Stages of the formation of a whorl in the upper line of division.

Figs. XVIII—XXII. Stages of the formation of a whorl in the lower line of division.

Group D. Illustrates two stages of a whorl in one specimen.

Two Figs. XXIII (a) XXIII (b) show the near and off sides of the same individual horse, with fully formed whorl, feathering and crest on the off side and commencing curve on the near side. The near side thus shows an earlier stage of development than the off side.

These are all drawings of individual horses, and among the number of specimens observed for the purpose of this investigation there have been many others exactly resembling some here given, and others little differing from them, but it has seemed better only to include the more typical cases of departure from the normal arrangement.

Summary of Results.

1.—In the first place two main lines of division of the hair-stream are shown, the upper adjoining the mane, and the lower lying midway between the neural and ventral borders of the neck along the upper border of the sterno-mastoid muscle. These lines of division are shown in their beginning and in their completion in the cases brought forward.

2.—In the second place there are shown the modes in which the hair-stream breaks away from these lines of division, with increasing trend towards the neural border of the neck, until in extreme cases the hair slopes in a curving direction towards the ears, thus reversing the general direction of the hair-stream.

3.—Thirdly, whorls are shown in various degrees of development lying in the upper and the lower lines of division.

4.—One particular specimen is shown (23a, 23b), in which one side of the neck shows a completed whorl, feathering and crest and the opposite side shows the earlier stage of a whorl.

5. The anatomical conditions and the common movements of the neck in the Domestic Horse are such as to offer special reason for expecting that interference with the normal direction of hair-growth in the side of the neck would occur.

6.—There have thus been demonstrated in a particular instance numerous stages in the process of formation of a whorl, merging so closely into one another that it can hardly be doubted that they represent the actual course of its development from the primitive and normal arrangement of hair. The main stages shown are, first, that a line of division of the cervical hair-streams is formed; secondly, that the neural portion becomes more and more diverted towards the mane; thirdly, that it curves forward until this portion under consideration directly opposes the general stream of the neck; fourthly, a whorl or vortex is established at the posterior extremity of the stream in question, and this never lies further back than the anterior border of the trapezius; and fifthly, a branching feather-shaped expansion passes forward to a varying extent; and finally, this is brought to an abrupt termination by a ridge or crest which never lies anterior to the ears.

It should be here stated that, though the minor degrees of variation cannot always be shown to be congenital, a completed cervical whorl is a congenital phenomenon, also that no other members of the Equidæ show any such whorl.

The analogy as to form, degree, anatomical conditions, and habits involved between the completed cervical whorl and other whorls found in the Mammalian hair is so close that it is legitimate to conclude that the course of development of those found in other regions and other animal forms is similar.

The paper was illustrated by a number of lantern slides.

Discussion.

The President, said that the study of the hair formation of different animals was a very interesting one, if not particularly useful. As far as he could see the hair grew in the direction in which there was least resistance, and from that it was perhaps possible to estimate the habits of the different animals. The whorls were found not only in the horse but in other animals; in some breeds of dogs with very strong fore-legs there was often found a feathering or whorl between the shoulder blades, and in the fox terrier and Irish terrier a whorl about the hip, showing that they were very strong in those parts.

Prof. Pritchard many years ago came to the conclusion (and he did not see why he should alter it) that the hair of an animal pointed from its head towards its feet. With regard to the horse there were certain curls of hair on the body, and owing to extraordinary circumstances hair would grow in different directions, probably in many cases owing to an accident, or at any rate to something that interfered with the circulation. The author had said nothing about perverted vascular action. Hair, skin, nails, all had to do with vascular action, and if that action was healthy, healthy material would be produced. Any interference with the vascular action of the nervous system for instance produced alterations. Interference with the small vessels that supplied nerve force to the fingers produced shaking in the hand, and any interference with the vascular action that supplied the hair on the skin was followed by certain results. Hair normally pointed from the head towards the feet, but by interfering with the vascular action feathers or whorls were produced; it was necessary, however, to have an irregularity to produce it. Any irregularity in the growth of the hair on the surface of the body of any living being, human or animal, was due to some interruption of the circulation.

Mr. Holding was very pleased to hear Prof. Pritchard's remarks on vascular action. He himself had seen many operations on the human subject, and had noticed that the direction of the hair was frequently altered by those operations. In the Zoological Gardens animals were often obtained from abroad in a lame condition, and it was easily observable that the whole course of the hair had been interfered with. When an animal had died and dissection took place the causes were found which had led to the deviation from the natural condition.

Professor Mettam had heard with great interest what Dr. Kidd had had to say, but could not make out exactly what he wanted to prove. He thought the better way to arrive at what was the proper manner in which hair should lie on an animal would be to examine the condition of the skin in the fœtus and examine the development of the hair as it appeared during the late periods of gestation. He knew that it was asking Dr. Kidd a very difficult question when he asked him what he considered to be the original method of the disposition of

the hair in the neck of the original horse or the ancestors of the horse. A good deal of work had been done on telegony, as Dr. Kidd knew, and a large amount of work had been done with the view of solving the peculiar markings upon the pelage of the horse. All Veterinary Surgeons were aware of the peculiar markings upon the horse's skin, markings in the position of the carpus and the tarsus, and peculiar patterns that might almost have been tatooed on the skin of the face, and some people were rather apt to look upon those as being ancestral or atavistic marks, and had thereby come to the conclusion that they were relics of the variegated patterns that were on the skin of the ancestor of the horse. If that was the case, if the ancestor of the horse was an animal with a variegated pattern, he doubtless had a fine display of whorls, and feathers, and ridges, and he wished Dr. Kidd to state any conclusion he might have come to as to what he considered was the primæval disposition of hairs on the horse's neck. That was one side of the question. There was another, which Professor Pritchard very clearly pointed out, the fact that an incision in the skin, a wound, frequently caused a deviation of the direction of the hairs in the immediate neighbourhood. That was not to be wondered at. An incision through the skin would destroy not only a considerable number of hairs and hair follicles but also a number of other structures which were in relation to the hair, more especially the growing hair. To his mind it would be rather strange that nothing should result from the incision.

There was another point. He had in his mind a paper published a good many years ago, he believed in "Natural Science," on the direction of the hair, more particularly in the *genus homo*. Anthropologists came to the conclusion, or put forward an opinion, that the direction of the hair upon the limbs of man and the limbs of the anthropoid apes was largely one of environment, that was, that the hairs were directed in the direction in which the limbs would be during a storm, so that there would be always a tendency for the water to run easily off the skin. He was not quite certain what Dr. Kidd considered to be the normal disposition of the hairs in the cervical region of the horse, but he took it that the normal direction was for the hairs to spread in a more or less radiating fashion over the anterior region of the shoulder—directed downwards and backwards. If that was the case, one might look upon the disposition of the hair as being largely due to a peculiarity in development with the view of getting rid of the moisture from off the skin as speedily as possible: everything was developed in order to facilitate the rapid and speedy drying of the horse's hair after he had been wetted, either by a storm or by the ordinary secretions of the skin which had been stimulated to great activity, probably by violent exercise.

Mr. BANHAM said he had read some years ago, but had forgotten all about it now, that the Arabs laid a great deal of stress upon the whorls of the hair on the horse's neck in connection with the various breeds. From horses with certain positions of whorls and feathers they would not breed. The question arose as to the causes of those various conditions in which the hair grew; whether it was the hereditary nervous system in the various breeds which produced the whorls the Arabs disapproved of, or whether they did not object simply because it was the result of a bad nervous system. Probably there were members in the room who remembered the different kinds of whorls the Arabs approved of and those they disapproved of, although whether there was any real reason why they should disapprove of them he did not know.

Mr. HOLDING said it was quite a conjecture to hazard a guess as to the direction of the hair in the ancestor of the horse, but one important clue was given lately by the specimens of Prjevalsky's horse which recently arrived in the Zoological Gardens. There one found the normal condition which Dr. Kidd had pointed out, the flow downwards. The specimens were singularly free from adventitious whorls, which showed that they might be due to environment and other causes.

Mr. CAUDWELL thought it was somewhat strange Dr. Kidd did not refer to other whorls on the horse's body. Anyone present who had never seen a horse would infer that the whorls Dr. Kidd had mentioned were the only ones on the horse's body, whereas there were the very well known whorls in front of the horse's head, on the frontal bone, whorls on the pectoral muscles and in the horse's flanks, and slight whorls in other parts. He thought it was probable the lecturer was fully aware of their presence.

Mr. SAVOURNIN remembered that in a certain species of monkeys, chiefly he believed in the orang-outang, the hair on the fore part of the arm was arranged to run backward from the wrist to the elbow, which at first sight seemed contrary to the general rule. But if one recollected the position which that monkey and others took up in rainy weather placing the hands on the head, it would be seen at once that it fell in with the general law, that was to say, the hair pointed towards the ground in wet weather.

The PRESIDENT said it was also seen in the two-toed sloth that hung by its claws to the tree with its back to the ground, it was simply a matter of the gravitation of the hair.

Mr. SLOCOCK thought that in ninety-nine out of every hundred horses there were whorls on the neck. They varied greatly in different horses. He never remembered seeing a horse without a whorl on the forehead. He particularly desired to know whether the present breeding and training of the polo pony was likely to do away with the whorl on the neck, for it seemed to him they were hog-maned from the time they were two or three days old. It was well-known that the horse in his youth was blessed with a very heavy mane, even well-bred horses had a big mane, which flowed generally on either side of the neck, so that the horse would have the whorl on both sides. With regard to the specimens shown, he asked whether it was possible to trace that the horse with the whorl on one side of the neck and not on the other had, as a colt, a mane hanging in the regular way on the one side? As to the hair running in the direction of the ground, he supposed nobody ever saw a horse but what had a whorl at the flank, running right up to the hip, and the horse's loin probably took more weather than any other part of him; he stood in the storm with his tail to the hedge. But he did not know exactly which way the water would run off his loins. It would be thought he did not want a whorl at his hips and that the hair should run in the straight direction downwards. The chest whorl was in a protected spot, the mane protected the neck whorl, and the forehead whorl was protected by the fore-lock according to the position the horse stood in the storm.

Dr. WALTER KIDD, in replying, said the normal arrangement as shown on the screen was simply that the hair grew down the line of the neck without much divergence, unless in the case of a very wide neck, and the mane diverged according to the width of the neck. It was a uniform normal stream without anything to notice at all, and that normal direction quite invalidated the idea that any rain tracts could be employed in that way, because it was not far from being horizontal and the rain could not run in this direction with any advantage. The Chairman had introduced in one sentence the chief point of the whole paper, that the hair grew in the line of least resistance. Wherever resistance from any cause whatever interfered with the hair growth the hair diverged from its normal line. The habits of the growth of hair and of the animal were very closely correlated. To prove that he once wrote a small paper on the habits of animals leading to certain changes in the

hair, and that one could be interpreted by the other. Prof. Pritchard had referred to the growth of hair in the abnormal direction, and the simple mechanical explanation given by Prof. Mettam of those divergencies he thought was quite sufficient. A cicatrix would make the hair grow abnormally. He thought it was quite impossible to hold the explanation of perverted vascular action, because there were certain points where it was impossible to say it was perverted vascular action. They were normal in the horse, and during hundreds of years horses had had the whorl in the chest and flanks, etc., not due to perverted vascular action. The point had been dealt with as it related to man's body by Eschricht many years ago, who tried to make out that the hair went in certain whorls and streams according to the vascular supply, but after working it out a good way he gave it up. Prof. Mettam's criticisms were very formidable, though one question was easily answered, namely, what was to be proved? The point he desired to prove was that the growth of hair was altered by mechanical action, partly by gravity, as in the case of the orang, sometimes by pressure, as in the fore-arm of the dog, who rested himself by lying along the ground and the hair here grew backwards instead of forwards, and partly by mechanical traction of the underlying muscles where there was a special action going on. Of course, it would be extremely interesting to study the fœtus, but it did not alter the fact that there were certain phenomena which developed as the horse grew older, and those were the phenomena that had to be explained. Whether they occurred in the fœtus or not they had to be explained in the adults. An examination of the fœtus would make it somewhat more interesting, but would not deal with the real question. As to the neck of the ancestors of the horse, he thought there could be little doubt that the neck must have been of the same smooth, level character as regards hair found in all the other equidæ. It was not assuming much to assume that. As to telegony and the marking of the horse with patterns, or their being atavistic he thought it was impossible to maintain that except in certain small areas. It would not account for the more developed whorls in the flanks. No known ancestor of the horse had anything of the kind. Some of the wild asses had slight developments of this but not so much as the horse, the horse having the greatest number whorls of any known animal. The primitve arrangement must have been of a simple, straight, or slightly developed character down the neck, and he thought that was a matter of selection. Men and animals inherited the direction of their hair to a certain extent from ancestors who had their hair in the line of "stem to stern," and that uniform, sloping direction was of value in the struggle for existence as allowing them to pass through the water and brushwood, etc., more quickly. Wherever that had been interfered with then came in the whorls and reversed position of the hair and so on. It all fitted in with what one knew of the comparative anatomy of the horse. As to the hair in man, he thought it had been shown conclusively that although there was one place in the human body where the direction of the hair might be accounted for—down the fore-arm—as being due to inheritance from monkey ancestors, who were supposed to have acquired it through sitting in the tropical forests in the rain, the human body as a whole did not bear that theory out. On the chest of man the hair grew straight upwards from the second costal cartilage, and in other parts of the body it was reversed, *e.g.*, on the back it passed at an angle of 45° to the spine. With regard to whorls in certain breeds of animals, he thought they could be hardly due to selection. To look upon them as important appeared to him to be something more of the nature of superstition. With regard to the other whorls, he had not thought it necessary to complicate the paper with them, the one on the neck being taken as a test case and the others taken for granted. The orang was one of the stock cases of the selectionist people, who maintained that the rain tracts on the monkeys were due to selection making them more able to make their way in the struggle for existence, but he did not think it was borne out when one came to study a large number of monkeys. The hair varied very much even in very near species. With regard to polo ponies, he thought it was very likely the whorls might be eliminated from the neck by excessive care in grooming, but that was a matter for the future. In conclusion, Dr. Kidd thanked the Fellows for their kind criticisms, which he said had been more serious and interesting than he might have obtained at certain other Societies.

On the proposition of Mr. Wragg, seconded by Mr. Rowe, a hearty vote of thanks was accorded to Dr. Kidd for his paper, and in his reply Dr. Kidd said that it encouraged him to think that the veterinary profession, like his own, was interested in theoretical science as well as that which merely brought in pounds shillings and pence.

Some Clinical Specimens of Cancer and other Malignant or Infective Tumours in the Domesticated Animals.

By Fredk. Hobday, F.R.C.V.S., F.R.S.E.

With the permission of your President, instead of the paper I promised him for this evening's meeting I would prefer to make it a clinical exhibition of a number of cases and specimens of malignant or very infective tumours in the dog, cat and horse, the majority of which have come under my personal notice during the past few years. The subject occurred to me as being of interest, because at a meeting of the Laryngological Society, held in November last, at which I exhibited a number of throat specimens of carcinoma, several of the medical men present expressed the opinion that cancer was a very rare occurrence amongst the domesticated animals. I believe too that this was the general trend of opinion amongst numbers of our own profession a few years ago, and although even now we do not admit that cancer is a very common disease we do maintain that it cannot be considered very rare. I will first draw your attention to five cases which I met with between January and October last year.

Case I. occurred in 1894 in a foxhound bitch between seven and eight years old. The tumour was situated on the left side of the throat and was about as large as half an orange. The symptoms shown were those of great lassitude and gradual emaciation, and the growth at first was supposed by the owner and kennel man to be an abscess. She was brought to London for operation, discretional power being given to painlessly put an end to her before coming out of the chloroform if the growth was found to be incurable. Upon attempting to dissect it out the impractibility of a successful result was clearly demonstrated and the patient was destroyed before recovering consciousness. The specimen was sent to Professor M'Fadyean, who pronounces it to be a carcinoma.

Case II. occurred in June, in a poodle aged seven years, the right side being affected. Examination of the mouth revealed an ulcerated jagged sore on the right side of the fauces, just in front of the tonsils. (*See illustration*). The cervical glands were much enlarged, the patient had difficulty in swallowing, salivated freely and was becoming much emaciated. The growth in the neck had been observed for about four months, but had latterly become very much enlarged. The owner had lost two relatives with cancer, and was much alarmed when I mentioned a suspicion of the nature of the lesion, consenting without any trouble to the painless destruction of the dog.

Case III. occurring in August, in consultation with Mr. Cade, M.R.C.V.S., of Bristol, was also a poodle which had been under observation and treatment for some four months by another practitioner for an ulcerated condition on the back of the mouth. Dysphagia had been noticed for some months, and the enlargement of the cervical glands had latterly very much increased. Salivation was profuse, the appetite capricious on account of the soreness of the mouth and throat, and the patient was visibly becoming emaciated. The throat presented practically the same appearance as the previous one.

Case IV. seen in September was a Pembrokeshire terrier, 8 years old. The specimen I have here, being the head and throat. The owner had noticed the patient being out of sorts for about five months, and during the last six weeks had observed considerable dysphagia, great lassitude, salivation and general emaciation. The cervical glands were much enlarged and there was a jagged ulcerating wound at the back of the fauces.

Case V. occurring in October was of particular interest from the clinical side. The patient was a cat, 8 years old, brought to us for advice on account of a continually gulping movement when swallowing. It appeared unable to take solid food without pain and the appetite was very capricious. Knowing the frequency with which these animals get a foreign body in the gullet a probang was passed. This could be distinctly felt to pass over some apparent fixed body on the interior of the œsophagus and then to go on satisfactorily into the stomach. As a repetition of the process always gave the same result and the obstruction could also be felt when the instrument was withdrawn a growth of some kind was diagnosed, and as the owner did not wish for any cutting-operation the patient was chloroformed to death.

The last four of these specimens were sent, in response to the appeal which they issued to the profession, to the Imperial Cancer Research Fund, and in each case a reply was received that they were true epithelioma of the squamous celled variety, in each dog the posterior part of the pharynx and palate were affected, there being secondary infection of the cervical glands.

In none of these cases had the infection spread to the lungs, or digestive tract.

Two other photographs I have here (*Illustrations*) are those of a dog and a cat in which the eye and orbital cavity were extensively affected. Both were of adult age, that of the dog not being exactly known. The animal was a mongrel pug, brought to the Free Clinique of the College on the 30th of January, 1896. It had been found in the street by a poor man who had taken pity on it on account of its helpless condition, and because it was being stoned by some rough boys. You will see by the photograph that its condition was absolutely hopeless and that the lethal chamber could be the only humane course possible.

The cat was brought to me in September, 1902, the owner having observed a tumour formation on the head. It had during the past few weeks increased inside very rapidly. I obtained the animal alive, and sent it up to the College for the benefit of the students. The confirmation of the diagnosis of cancer was made microscopically after death by Professor M'Fadyean, in each case.

The next case is one to which my attention was drawn by Mr. Watt, M.R.C.V.S., of Fulham. The patient was a cab mare, aged, with a protrusion of the right eye to such an extent that it perceptibly altered the contour of the face. The frontal bone on that side was softened, so much so that it sprung readily under the finger and felt as if one could without any difficulty push a hole through it. There was a discharge from the right nostril, this at times being tinged with blood. Mr. Watt had been called in to see the animal about five months before and, as is usual in such cases in London, had immediately applied the mallein test. To this there was no reaction. At that time the bones were not softened nor did the eye bulge out of its place. The animal was sent to work and went along satisfactorily until the end of February. She was then kept in the stable for a week or two and the owner again asked Mr. Watt's advice. When I saw the mare the frontal sinus was as described above. We again applied the mallein test without result and Mr. Watt very kindly obtained the owner's permission for the horse to be sent alive to the College in order that Prof. M'Fadyean might demonstrate the lesion to his class. It has proved to be a true carcinoma, and by Prof. M'Fadyean's kindness the specimen, together with a microscopical section, have been prepared and preserved for your benefit this evening. Prof. M'Fadyean considers that it probably commenced in the maxillary sinus and spread to frontal.

With a view to making the series a little more complete and in order that I might show you a greater variety than those which had happened to come under my own personal observation I applied to Prof. M'Fadyean and to Drs. Bashford and Murray of the Imperial Cancer Research Fund, mentioning the subject of my address before this meeting to-night. Each very generously added to the collection I have here. Prof. M'Fadyean has lent us several microscopical slides, whilst Drs. Bashford and Murray have kindly sent, in addition to the ones you have already seen :—

(1) A specimen of carcinoma on the back of a mouse only 15 days after transplantation, illustrating well the extreme rapidity of the growth.

(2.) A portion of tongue of a cat, 12 years old, sent to them by Mr. Blake, M.R.C.V.S., of Ryde, Isle of Wight, showing squamous celled carcinoma.

(3.) A specimen of adeno-carcinoma in a trout sent from South Africa by a medical man out there, showing that even fishes are not exempt; and for comparison a benign thyroid tumour in a trout sent to England by our colleague Mr. J. A. Gilruth, M.R.C.V.S., the Government bacteriologist and chief veterinarian to the New Zealand Government.

Here it may be mentioned that this gentleman was the first to report the occurrence of carcinoma in the fish.

You will notice in regard to the age of the animals that in every instance the patient had passed the stage of youth and the majority were past middle age.

In a very interesting article on the occurrence of cancer in the lower animals by Prof. M'Fadyean, published in *The Journal of Comparative Pathology and Therapeutics* a few years ago, there were tabulated some 49 cases of true carcinoma which he had examined, 25 of these occurring in the horse, and of these 7 occurred on the penis, 4 in the antrum, 4 in the tail, 3 in the stomach, and two in the bladder. In the cow, 5 cases were met with, in the sheep 1, in the dog 16, and the cat 2.

It is practically an undisputed fact that cancer is principally a disease of old or adult age, in animals as well as men, and, although it cannot be said to be as common as some of the other tumours it may legitimately be said, now it is more often sought after, to be by no means infrequent or rare.

Of the other specimens, one is a cat, aged 8½ years, with a most disfiguring granuloma of the nostril. Curiously enough this cat belonged to the same owner as that of the cat with the cancer of the orbit, although some three years intervened before he brought this one to me, and he did not possess the two at the same time. Thinking it to be probably a carcinoma I forwarded the cat to the Cancer Research and got the reply that it was a granuloma and one which could be very readily transplanted to other cats, growing very rapidly (even in 15 days) to a large size and causing emaciation and death in a very short time.

Whilst on the subject of the transmissable tumours I thought it would interest you to see photographs of a contagious venereal tumour which we meet with far too commonly in the dog, especially the bull-dog, although no breed is totally exempt, and I have seen it in pugs, Japs, St. Bernards, Pekins, terriers and mongrels.

It cannot be too widely known that these tumours, which have been variously designated infective papillomas, sarcomas and granulomas, are very contagious, and may even cause the ruin of a kennel. In the bull-dog world they have caused great havoc and spoiled many brood bitches.

They are easily discovered in the dog by examination of the penis and in the bitch by vaginal digital examination. They are readily dealt with in the male except when they infect the base of the penis in large numbers, but in the bitch they are often a trouble, especially if they are any distance inside.

They can be felt as irregularly shaped slimy growths on the sides or floor of the vagina, and may be suspected by a dirty coloured fœtid discharge.

The last photograph represents the ordinary wart or papilloma of the mouth. This is an excellent specimen photograph and was sent to me by Mr. Vincent, M.R.C.V.S., of Grays. You will see that the mouth is covered with them. They are very contagious, and will spread in a kennel of hounds or other dogs from the habit they have of biting one another and playing with one another's mouths. In 1898 Prof. M'Fadyean and myself did some experimental work with them (published at the time in *The Journal of Comparitive Pathology and Therapeutics* (vol. xi. p. 341) by scarifying the lips of several healthy dogs and rubbing the abraded spot with the bleeding end of a freshly excised papilloma. We got a perceptible growth in about a month and they disappeared or withered away about a month later.

I have purposely avoided allusion to treatment or things other than the clinical aspect of these tumours because, except with the last (the wart) which may be treated medicinally or even disappear spontaneously. I do not think there is much to be said beyond the free use of the knife under an anæsthetic. Even this is useless in the carcinoma unless the contiguous lymphatics are also removed and in any case a tolerably large area around the growth should always be taken.

The illustrations are taken, by permission, from "The Surgery of the Dog and Cat," now in the press.

My chief wish to-night is to produce a discussion upon the clinical aspect of each of these malignant or contagious growths and to hear from you your experiences of the same.

The hour being late, on the proposition of Mr. Payne, seconded by Mr. Davies, the discussion was adjourned until the next meeting.

The meeting terminated with a vote of thanks to the President.

HUGH A. MACCORMACK.

DISEASES OF ANIMALS ACTS 1894 TO 1903. SUMMARY OF RETURNS.

Period.	Anthrax.		Foot-and-Mouth Disease.		Glanders (including Farcy)		Rabies. Cases Confirmed.		Sheep Scab.	Swine Fever.	
	Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Dogs.	Other	Out-breaks	Out-breaks.	Slaughtered *
GT. BRITAIN. Week ended Apr. 15	19	26	..	..	23	28	..	..	13	17	148
Corresponding week in 1904 ..	16	24	..	..	36	59	..	..	13	32	229
Corresponding week in 1903 ..	15	19	..	..	24	38	..	..	10	26	123
Corresponding week in 1902 ..	9	11	..	34	20	36	..	..	22	27	97
Total for 15 weeks, 1905	313	467	..	..	336	639	..	..	581	186	983
Corresponding period in 1904 ..	306	420	..	..	432	820	..	..	973	377	2209
Corresponding period in 1903 ..	238	369	..	..	356	627	..	..	1057	408	1871
Corresponding period in 1902 ..	229	394	1	111	334	639	9	..	996	458	2323

Board of Agriculture and Fisheries, April 18, 1905.

IRELAND. Week ended April 8	..	..	..	..	..	1	..	..	10	..	4
Corresponding Week in 1904 ..	..	..	..	..	1	1	..	..	12	5	17
Corresponding Week in 1903 ..	..	..	..	..	..	..	..	..	4	1	65
Corresponding Week in 1902 ..	..	..	..	..	..	1	..	..	13	4	158
Total for 14 weeks, 1905	2	2	..	..	9	24	..	..	189	6	200
Corresponding period in 1904 ..	2	2	..	..	3	18	..	..	307	34	689
Corresponding period in 1903 ..	..	..	..	..	1	2	..	..	349	13	472
Corresponding period in 1902 ..	..	..	..	..	4	14	..	..	371	40	802

Epizootic Lymphangitis, Week ending Jan. 14, 2 cases; Feb. 25, 2 cases; March 25, 10 cases.

Department of Agriculture and Technical Instruction for Ireland, (Castle Street), Dublin, April 13, 1905.

NOTE.—The figures for the Current Year are approximate only. * As Diseased or Exposed to Infection.

DISEASES OF ANIMALS ACTS 1894 TO 1903. SUMMARY OF RETURNS.

Period.		Anthrax.		Foot-and-Mouth Disease.		Glanders (including Farcy)		Rabies. Cases Confirmed.		Sheep Scab.	Swine Fever.	
		Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Dogs.	Other	Out-breaks	Out-breaks.	Slaughtered *
GT. BRITAIN. Week ended Apr. 22		22	24	..	..	29	38	..	..	8	13	33
Corresponding week in	1904 ..	8	9	..	..	25	45	..	..	14	27	106
	1903 ..	16	19	..	..	26	40	..	..	21	30	206
	1902 ..	13	19	..	8	31	49	..	..	18	22	100
Total for 16 weeks, 1905		335	491	..	..	365	677	..	..	589	199	1016
Corresponding period in	1904 ..	314	429	..	..	457	865	..	..	987	404	2315
	1903 ..	254	388	..	..	382	667	..	..	1078	438	2077
	1902 ..	242	413	1	119	365	688	9	..	1014	480	2423
IRELAND. Week ended April 15		..	..	..	..	..	..	..	..	8	..	28
Corresponding Week in	1904 ..	..	..	..	..	..	..	..	..	6	1	82
	1903 ..	..	..	..	..	..	..	..	..	11	4	125
	1902 ..	..	..	..	..	..	1	..	..	11	6	77
Total for 15 weeks, 1905		2	2	..	..	9	24	..	..	197	6	228
Corresponding period in	1904 ..	2	2	..	..	3	18	..	..	313	35	771
	1903 ..	..	..	..	..	1	2	..	..	360	18	597
	1902 ..	..	..	..	..	4	15	..	..	382	46	879

Epizootic Lymphangitis, Week ending Jan. 14, 2 cases; Feb. 25, 2 cases; March 25, 10 cases.

Department of Agriculture and Technical Instruction for Ireland, (Castle Street), Dublin, April 20, 1905.

NOTE.—The figures for the Current Year are approximate only. * As Diseased or Exposed to Infection.

VIIIth INTERNATIONAL VETERINARY CONGRESS.

The Executive Committee has held a meeting under the Presidency of Dr. François Hutyra, Rector of the Higher School of Veterinary Medicine.

At the instance of Prof. Etienne de Ratz, General Secretary, it has been decided that the opening ceremony shall take place on Sunday, Sept. 3, at 11 a.m. The sittings of the Section of Veterinary Sanitary Police have been fixed for Sept. 4th, 5th, and 6th, on which days no other meetings will be held. Those of the Section of Biology and Pathology and those of the Special Section of Tropical Diseases will be held on Sept. 5th and 7th. The closing meeting will take place on Sept. 9th, but the Section of Pathology will meet earlier on that day for a discussion on Obstetric paresis.

All arrangements for the reception and entertainment of the visitors have been entrusted to a Special Commitee, of which Prof. Bela Plosz is President. The Executive Committee will organise, in addition to visits already projected to the Hungarian haras and State establishments (two days each), excursions to the Hauts-Tatra (2-3 days) and to Lake Balaton (1 day), if the visitors join in sufficient numbers. The Committee will give timely notice of these excursions to members of the Congress.

Besides the usual Reception banquet there will be one given by the Municipality of the Capital-residence, Budapest, and other fêtes, including a gala representation at the Royal Hungarian Opera.

A special Ladies Committee will shortly be formed devoted to the reception and entertainment of the ladies who accompany the Congressists.

The various local committees have worked vigourously on behalf of the Congress. The French committee, president M. Barrier, director of the Veterinary School at Alfort, has recruited 31 members; M. le Prof. Galtier, of Lyon, 13; M. le Directeur Degive, Brussels, 34; M. le Prof. Hess, 16. The Austrian committee, (president, M. le Conseiller de Section Binder) has announced to the General Secretary the adherence of many *confrères*.

The number inscribed up to the present is nearly 300.

The Conference to be held on Tropical diseases has been strongly supported, notably in England and in the British Colonies. The interest taken is evidenced by the fact that the British Minister for Foreign Affairs has applied, through the British Consul at Budapest, for 200 invitations, in addition to those which have already been sent.

E. DE RATZ, *Gen. Sec.*

VETERINARY SURGEON HIDES BEHIND "THE GAMING ACT."

An extraordinary case was heard at the Cambridge County Court, before his Honour Judge Shortt, on April 19th. It arose out of a chance introduction at Cambridge, a card party, heavy losses at a game called "Uncle Sam," a dishonoured cheque, and allegations of foul play at cards.

Mr. William Cartlidge, described as an Australian sheep farmer, residing at Kennington Park Road, London, sued Mr. Sampson Bennett, veterinary surgeon, of Cambridge, for £89 10s., the value of a cheque given by the defendant, which was subsequently dishonoured.

Mr. Cannot (instructed by Messrs. Cunningham and Co., of London), appeared for the plaintiff, and Dr.

Cooper (instructed by Mr. G. A. Wootten) for the defendant.

Mr. Cannot explained that the cheque for £89 10s., which was dated March 2nd, was tendered by the defendant in payment of a debt made at cards, and was dishonoured. The plaintiff was on a motor tour, and made the acquaintance of the defendant at Cambridge through Mr. Makings, who knew Mr. Bennett. The party stayed at the Ye Olde Castel Hotel, and Mr. Bennett attended a dinner there. After dinner a proposal was made by the defendant that cards should be played, and thereupon he sent for a pack of cards.

Dr. Cooper asked his friend to keep the case short, as they had pleaded the Gaming Act.

Proceeding, Mr. Cannot said the pack of cards was sent up by the proprietor of the hotel, Mr. Hammond, and the game was played. The result was that Mr. Bennett had to give Mr. Cartlidge a cheque for £89 10s. If it had been simply a matter of the pleading of the Gaming Act, he (the speaker) would not have been there that day, because he could not get over that defence, but another suggestion was made at the time the cheque was stopped that there had been foul play; that the plaintiff had been playing with marked cards or something of that kind. The plaintiff thought he was absolutely bound to deny that in Court on oath and clear his name from the foul aspersions made against him without any foundation. Counsel challenged Dr. Cooper to withdraw the Gaming Act defence and allow the case to be decided on whether the play was fair or not. It was not proper for a man in Mr. Sampson Bennett's position after having made such an accusation, to shield himself behind the Gaming Act to prevent the matter being gone into. The cards used in the game did not belong to the plaintiff, but to the proprietor of the hotel.

His Honour said it was admitted on the part of the plaintiff that he had no case. Then counsel said there was a side issue, an imputation upon his client's character—a suggestion of a false character. "That I want to try," he said. How could he (His Honour) try it? If it had taken the form of a libel or anything of that sort

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Mr. Cannot remarked that he was quite aware that His Honour's observations were correct, but he always liked to deal with the Court frankly.

Dr. Cooper protested against Mr. Cannot's statement. Let the plaintiff bring an action for slander if he thought there was anything in it. "We will justify and prove it," added Dr. Cooper.

The plaintiff was sworn, and examined by Mr. Cannot, said he made the acquaintance of Mr. Bennett in Cambridge through Mr. Makings.

Mr. Cannot: Did you play cards with him?—Yes.

And did he give you this cheque?—He did.

And it was stopped. What game did you play?—A game Mr. Bennett suggested himself—"Uncle Sam." I had never heard of it before.

Was the play fair play, or was there any foul play on your part?—None whatever.

Any marking of the cards, or anything of that kind?—No, the publican sent the cards in, and that was the first I saw of them.

Is there any ground for an accusation of unfair play against you?—No, none whatever, or I should not have brought this action.

No further evidence was offered, and His Honour gave judgment for the defendant.

An Explanation.

To the Editor.

Sir,—In the above case at the County Court to-day, it was stated that I supplied the pack of cards with which the parties in the above case played. This is absolutely incorrect. I neither supplied the cards nor knew a game of cards was being played on my premises. The parties concerned engaged a private room for dinner, and the waiter who attended to them saw nothing of any card playing, and was not asked to supply either a drink or a cigar during the evening.—Yours, etc.,

JAS. HAMMOND.

—*Cambridge Daily News.*

Tewkesbury Town Council and their V.S.

At a meeting of the General Purposes Committee of the Tewkesbury Town Council on Monday, April 10th:

Councillor Smith asked why there was no change in the veterinary surgeon, as various other things were handed round amongst other traders.

Alderman Baker said he should not like to change his doctor every week; they did not change their medical officer.

Councillor King endorsed Alderman Baker's opinion; he thought that if one man was in the habit of doctoring a horse, he understood the constitution of that horse, and knew how to keep him right.

Councillor Howell thought they should have a change occasionally, say every two or three years, and they ought to change about occasionally with other ratepayers, Mr. Malvern had done the work for some time. Dr. Elder's brother was veterinary surgeon for the town for seven months, and he (Councillor Howell) did not see why it was taken off him. He thought they ought to have a change.

Councillor Gardner did not think they should change too frequently.

The Mayor said the question of dealing with horses did not apply quite in the same way as the appointment of medical officer, who had also to deal with sanitary matters.

Councillor Smith said the veterinary surgeon should be dealt with in the same way as other tradesmen.

Alderman Baker: You call him a tradesman, do you? Mr. Malvern is a member of the Royal College of Veterinary Surgeons, and I don't think he would call himself a tradesman.

Councillor Smith: Well, it's a trade.

Councillor Howell: Are there any horses ill now, Mr. Ridler?

Mr. Ridler: No.

Councillor Godfrey: That's a very good reason why we should keep him, if he keeps them healthy.

Councillor Boughton: It's the principle we act upon in this Council.

Councillor King: But he is different to other tradesmen.

Councillor Smith: It's a very good principle, and that's the reason why I brought it up, and I don't know why Mr. Elder had it taken from him in such an abrupt manner. It isn't a personal matter; personally, I and Mr. Malvern are the best of friends.

Alderman Baker: Would you, having a town clerk, go to another solicitor to draw up your agreements?

The Mayor: The appointment of medical officer comes up every year, and you have an opportunity of making a change.

The Surveyor stated that the veterinary surgeon was paid according to the services performed.

Councillor Smith said he should bring the matter up at the Town Council meeting on Monday next.

On Monday, April 17:—

Councillor Smith, speaking on this question, said his chief object in bringing up this matter was that about three years ago the Council appointed another veterinary surgeon for seven months, and then took the appointment from him in an abrupt manner. If he knew the

reason why the appointment was taken away on that occasion he should have no proposition to make.

Councillor Boughton said that having spoken on the matter at the meeting of the Committee, he should like to say a word. He had spoken on principle, and did not think there was much difference between a professional man earning his living and a tradesman earning his. Mr. Malvern called upon him, and he seemed to feel the Council would do him a great injustice, would degrade him in the eyes of the public, and would not deal fairly with him. He felt that no member of the Council would wish to degrade any professional man or tradesman. It was a question of fairness of dealing, and no matter how many veterinary surgeons there were each one should have a period of office. Personally he had no intention of degrading Mr. Malvern in the eyes of the public.

Councillor Gardner said that if the appointment was taken away from Mr. Elder abruptly it certainly demanded an explanation. It would be as degrading to Mr. Elder as it would be to Mr. Malvern.

Councillor King enquired if Mr. Smith could give dates of Mr. Elder's appointment.

Councillor Jackson said he believed it was in 1901.

The Mayor said that Mr. Elder was paid for attending the horses for the year ended March, 1901.

Alderman Baker said it would be found that Mr. Elder was never appointed veterinary surgeon, but a Committee had instructed the surveyor to call in Mr. Elder. Mr. Malvern's predecessor attended the Corporation horses, and Mr. Malvern had done so for over 20 years.

Councillor Smith said he had no personal feeling; he respected Mr. Malvern as much as any gentleman in Tewkesbury, but he thought an explanation should be given.

The Mayor said the Council had every confidence in Mr. Malvern, and he thought the matter might rest until the appointments were made on the 9th of November; then if anyone thought it desirable to have another gentleman to attend to the horses, he should make a proposition. The present would be a very inopportune time to deal with the matter. He regarded Mr. Malvern as a very capable practitioner, and a personal friend.—The matter then dropped.—*The Tewkesbury Register.*

Personal

PATON—BRUCE.—At the Grand Temperance Hotel, Perth, on the 19th inst., by the Rev. J. W. Slater, B.D., West U.F. Church, Scone, James Paton, F.R.C.V.S., Stevenage, Herts, to Lizzie Duncan, youngest daughter of the late Robert Bruce, farmer, Williamstown, St. Martins.

OBITUARY.

HARRY TENNISON ARMSTRONG, M.R.C.V.S.
Graduated, Lond: May, 1890.

All his colleagues and many farmers in the Graaff-Reinet, East London and Aliwal North districts, will learn with regret and sorrow of the death of Mr. Harry Tennison Armstrong, M.R.C.V.S., at the time of his death District Veterinary Surgeon, residing at Aliwal North, Cape Colony. He came to this country in 1895, and was attached to the Government Veterinary Department during the spread of Rinderpest in Bechuanaland. He was afterwards lent to the Imperial Government and conducted the campaign against that disease in Basutoland. He was subsequently stationed at Graaff-Reinet where his work in connection with Rinderpest and parasitic diseases of ostriches, more especially his experimental dosing of these birds for wire-worms will be well remembered by residents in the district, where his genial character, kindly disposition and high professional abilities made him a general favourite. During the last recrudescence of Rinderpest in this Colony, Mr. Armstrong was placed in charge of the Serum Station at Aliwal North where his good work and intimate knowledge of the subject were of the greatest value to the Colonial and military authorities. Mr. Armstrong was a keen, earnest and indefatigable worker at his profession and did good service in the combat against infectious disease. He was a good friend, an entertaining companion and one of the most charming *raconteurs* it has been our pleasure to know, and we deeply regret his early decease at the age of 37.—*The Agricultural Journal of the Cape of Good Hope.*

HARRY REYNOLDS, M.R.C.V.S., Horley, Surrey.
Graduated, Lond: December, 1892.

The death has occurred, under painfully sudden circumstances, of Mr. H. Reynolds, veterinary surgeon, of Horley, a well-known member of the Copthorne Common Golf Club. Deceased was playing on the Copthorne Links on Saturday. He had for some time suffered from heart trouble, and it is thought that he over exerted himself. In the evening Mr. Reynolds pumped up the tyre of his motor car, and commenced to drive along the common with a friend, Mr. Kent, in the direction of Horley, when it was noticed that he was not steering the car straight. Mr. Kent then saw deceased leaning over the seat, but did not at once become alarmed, thinking that he was looking at the works beneath the steering wheel. Finding, however, that he did not move, the other occupant stopped the car, and deceased was discovered to be in a collapsed condition. He was removed into the Copthorne Club House, where he was attended by Mr. S. Matthews, of Crawley, but died soon afterwards. The facts have been reported to the Coroner, but no inquest has been considered necessary, death being attributed to heart failure.—*Sussex Daily News.*

CORRESPONDENCE.

Sir,

I cannot quite agree with writers of letters giving such a black side to the country veterinary surgeon, suggesting that he is doomed, etc. Perhaps these are written by town Vets, or some discontented persons that nothing in the world would satisfy. Now I am a country veterinary surgeon, and I consider my lot far superior to my town brethren as to my future, for I am certain that motor lorries and cars must have a telling effect on them, but as my practice is a cattle one and they cannot get a motor car to supply milk and meat, and I can make an honest good living with very little expense and outlay, and plenty of country sport and engagements both winter and summer, and can do also work which adds materially to my income which is barred to the town vet., therefore the grievances complained of are very much exaggerated.

Now I come to the real grievance of the country practitioners—the cause of our income being materially reduced is the butcher.

To-day screw butchering is carried on to an alarming extent, men practically making a fortune at it, the meat being sent to our large cities and towns openly. I know in my district where plenty of farmers have established small slaughter-houses in some place that used to be a loose box, and to this centre dying and ailing cattle are being sent, dressed, and then dispatched by rail to the nearest town or city—meat that is not fit for a dog to eat.

I have often asked these men how they get the meat in the town with such rigid inspection and they assure me—and what I have seen and enquiries made I cannot doubt its

correctness—that the meat is taken for inspection to the public slaughter-house and there passed by the inspectors who are qualified veterinary surgeons. One or two sometimes get cut down, but that they can afford to stand. Since this can be so well carried out it causes stock-owners to have their sick and ailing cattle beefed instead of treated; and I may say there are men to-day scouring the country for these cattle to such an extent that should I have a cow down and ill they are on the look out like bees, waiting for its last breath so they can just get in time and bleed it. As I write this letter I am just called in a hurry to see a cow that has been ill for some little time, and from the symptoms described she is dying. I go and am disgusted to find her throat cut, bled, and one of these nefarious butchers in the act of dressing her for the market. I tell the owner it is not fit for human food and ought not to be sent and that he runs great risk if it is found out, but the only answer one gets is "Oh, I have sent many a lot and always done well out of them and always passed the inspector."

Now I think this is a disgrace to the country, and until legislation is carried to affect the whole country it will never be stopped, but continued to the detriment of the future race and loss to the veterinary surgeon in the country.—Yours truly,

COUNTRY VETERINARY SURGEON.

COMMUNICATIONS AND PAPERS RECEIVED.—Messrs. A. J. Todd, W. H. Flook, G. H. Locke, W. J. Malvern, S. L Stevens, "Cave Canem," "Rule 113," "Country V.S."

The Cambridge Independent Press, The Wetherby News, The Tewkesbury Register, The People, Sussex Daily News.

Veterinary Societies—Addresses.

Alterations for this list must be duly notified by the Secretaries

BORDER COUNTIES V.M.S.
Pres: Mr. J. W. Hewson, M.R.C.V.S., Wigton
Hon. Sec. (pro tem.): Mr. F. W. Garnett, M.R.C.V.S., Dalegarth, Windermere
Meetings, Second Friday of Feb., June, and October

CENTRAL V.M.S.
Pres. Mr E. Lionel Stroud, F.R.C.V.S., 29 Spring-st., Hyde Park, W.
Hon. Sec: Mr. H. A. MacCormack, M.R.C.V.S., 122 St. George's Avenue, Tufnell Park, N.
Meetings, First Thursday in each month, except August and September, 10 Red Lion Square. Holborn, at 7 p.m.

CENTRAL V.A. OF IRELAND.
Pres. Mr. M. J. Cleary, M.R.C.V.S., Kilpatrick, Mullingar
Hon. Sec: Mr J. J. Vahey, M.R.C.V.S., Ballinrobe
Treas: Mr. J. F. Healey, M.R.C.V.S., Midleton

EASTERN COUNTIES V.M.A.
Pres: Mr. Fred. Morton Wallis, M.R.C.V.S., Halstead, Essex
Hon. Sec.: Mr. H. P. Standley, M.R.C.V.S. Wymondham
Meetings, Second Tuesday, Feb. and July

GLASGOW V.M.S.
Pres. Principal McCall.
Hon. Sec. Mr. F. McShane

VET. MED. ASSN. OF IRELAND.
Hon. Sec. Mr. J. McKenny, M.R.C.V.S. 116 Stephens-green-west, Dublin
Pres: Mr. Chas. Allen, F.R.C.V.S., 35 North Frederick st., Dublin

LANCASHIRE V.M.A.
Pres: Mr. W. Packman, M.R.C.V.S., The Wylde, Bury
Hon. Sec.: Mr. G. H. Locke, M.R.C.V.S. Grosvenor-street, Manchester
Meetings, 1st Thursday in April, June, Sept., & Dec.

LINCOLNSHIRE V.M.S.
Pres. Mr. T. A. Rudkin, M.R.C.V.S., Grantham
Hon. Sec: & *Treas*: Mr. T. W. Turner, M.R.C.V.S., Sleaford
Meetings, Second Thursday Feb., June, and October

MIDLAND COUNTIES V.M.A.
Pres: Mr. W. Hunting, F.R.C.V.S., Chelsea, London, S.W.
Hon. Sec: Mr. H. J. Dawes, F.R.C.V.S., Camden House, High-st., West Bromwich
Meetings, Second Tuesday, Wednesday, Thursday, and Friday alternately in Feb., May, Aug. and Nov.

NATIONAL VET. ASSOCIATION.
Pres: Mr. R. C. Trigger, J.P., F.R.C.V.S., Newcastle, Staffs.
Sec: Mr. William Hunting, F.R.C.V.S.
Treas: Mr. F. W. Wragg, F.R.C.V.S., Whitechapel, London.

NATIONAL VETERINARY BENEVOLENT & MUTUAL DEFENCE SOCIETY.
Pres: Mr. W. A. Taylor, F.R.C.V.S., Brick-st, Manchester
Treas: Mr. E. Faulkner, F.R.C.V.S., Manchester
Hon. Sec: Mr. Sam. Locke, M.R.C.V.S. Grosvenor Street, Oxford-st., Manchester

NORTH OF ENGLAND V.M.A.
Pres: Mr. W. Hunter, M.R.C.V.S., Newcastle-on-Tyne
Hon. Sec: Mr. E. R. Gibson, M.R.C.V.S. 25 Marlborough-street, Seaham Harbour
Meetings, Third Friday, Feb., May, Aug. and Nov.

NORTH OF SCOTLAND V.M.S.
Pres: Mr. David Crabb, M.R.C.V.S., New Aberdour
Sec. & Treas: Mr. Clement Baxter, M.R.C.V.S., Elgin

NORTH WALES V.M.A.
Pres: Mr. R. Jones, M.R.C.V.S., Towyn, Merioneth
Hon. Sec. T. C. Howatson, M.R.C.V.S., St. Asaph
Meetings, First Tuesday, March and September

ONTARIO V.A.
Pres: Mr. J. H. Tennent, V.S., London, Ontario
Sec: & *Treas*: Mr. C. H. Sweetapple, V.S., Toronto, Ontario

ROYAL COUNTIES V.M.A.
Pres: Mr. H. C. Jagger, M.R.C.V.S., Bicester
Hon. Sec: Mr. Percy J. Simpson, M.R.C.V.S., Kendrick House, Maidenhead
Hon. Treas: Mr. J. P. S. Walker, F.R.C.V.S., Oxford
Meetings, Last Friday, Jan., June and Nov.

ROYAL SCOTTISH V.S.
Pres: Mr. Reid, M.R.C.V.S., Auchtermuchty.
Hon. Sec: Mr. W. D. Fairbairn, M.R.C.V.S., Cupar, Fifeshire

ROYAL VETERINARY COLLEGE M.A.
Pres: Mr. E. E. Brown, M.R.C.V.S.,
Hon. Sec: Mr. W. T. Collins, M.R.C.V.S.
Assist. H.S. Mr. F. W. Chamberlain.

SCOTTISH METROPOLITAN V.M.S.
Pres: Mr. John Hutton, M.R.C.V.S., Kelso
Hon. Sec: Mr. John McIntosh, M.R.C.V.S., Eskbank

SOUTH DURHAM AND NORTH YORKSHIRE V.M.A.
Pres.: Mr. H. Peele, M.R.C.V.S., 30 Church-street, Durham
Hon. Sec: Mr. W. Awde, F.R.C.V.S., Stockton-on-Tees.
Meetings, First Friday, Mar., June, Sept. and Dec.

SOUTHERN COUNTIES V.M.S.
Pres: Mr. F. Spencer, M.R.C.V.S., Basingstoke
Hon. Sec: Mr. J. Alex. Todd, M.R.C.V.S., Worthing
Hon. Treas: Mr. E. W. Baker, M.R.C.V.S., Wimborne
Meetings, Last Thursday, Mar., June and Sept.

TRANSVAAL V.M.A.
Pres: Mr. Stewart Stockman, M.R.C.V.S.
Vice-Pres: Mr. John Peddie, M.R.C.V.S.
Hon. Treas: Mr. J. H. Bell, M.R.C.V.S.
Hon. Sec: Mr. J. Kirby Pilkington, M.R.C.V.S., Johannesburg

WESTERN COUNTIES V.M.A.
Pres: Mr. G. H. Gibbings, F.R.C.V.S., Tavistock
Hon. Sec. Mr. W. Ascott, M.R.C.V.S., Bideford
Hon. Treas: Mr. P. G. Bond, M.R.C.V.S., Plymouth
Meetings, Third Thursday, March, July and November

WEST OF SCOTLAND V.M.A.
Pres: Mr. James Weir, F.R.C.V.S., 24 Pollock st., Glasgow
Joint Hon. Secs: & *Treasrs*: Messrs. Hugh Begg and John R. McCall, Vety. Coll
Meetings, Second Wednesday, May, Oct. and January.

YORKSHIRE VET. ASSOCIATION
Pres: Mr. F. Hallilay, M.R.C.V.S., Dewsbury
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Hon. Treas: Mr. J. E. Scriven, M.R.C.V.S., Tadcaster